TOSHIBA

FILE NO. 810-200695GR

# SERVICE MANUAL

# HD DVD PLAYER

# HD-XE1KE
# HD-XE1KY

The above models are classified as green products (*1), as indicated by the underlined serial numbers. This Service Manual describes replacement parts for the green products. When repairing these green product(s), use the part(s) described in this manual and lead-free solder (*2).

For (*1) and (*2), see the next page.

Dec., 2006 GREEN

## (*1) GREEN PRODUCT PROCUREMENT

The EC is actively promoting the WEEE & RoHS Directives that define standards for recycling and reuse of Waste Electrical and Electronic Equipment and for the Restriction of the use of certain Hazardous Substances. From July 1, 2006, the RoHS Directive will prohibit any marketing of new products containing the restricted substances.

Increasing attention is given to issues related to the global environmental. Toshiba Corporation recognizes environmental protection as a key management tasks, and is doing its utmost to enhance and improve the quality and scope of its environmental activities. In line with this, Toshiba proactively promotes Green Procurement, and seeks to purchase and use products, parts and materials that have low environmental impacts.

Green procurement of parts is not only confined to manufacture. The same green parts used in manufacture must also be used as replacement parts.

## (*2) LEAD-FREE SOLDER

This product is manufactured using lead-free solder as a part of a movement within the consumer products industry at large to be environmentally responsible. Lead-free solder must be used in the servicing and repair of this product.

### WARNING

**This product is manufactured using lead free solder.**

**DO NOT USE LEAD BASED SOLDER TO REPAIR THIS PRODUCT !**

The melting temperature of lead-free solder is higher than that of leaded solder by 86°F to 104°F (30°C to 40°C). Use of a soldering iron designed for lead-based solders to repair product made with lead-free solder may result in damage to the component and or PCB being soldered. Great care should be made to ensure high-quality soldering when servicing this product especially when soldering large components, through-hole pins, and on PCBs as the level of heat required to melt lead-free solder is high.

## SAFETY INSTRUCTIONS

**WARNING:** BEFORE SERVICING THIS CHASSIS, READ THE " SAFETY PRECAUTION " AND " PRODUCT SAFETY NOTICE " INSTRUCTIONS BELOW.

## SAFETY PRECAUTION

**WARNING:** SERVICE SHOULD NOT BE ATTEMPTED BY ANYONE UNFAMILIAR WITH THE NECESSARY PRECAUTIONS ON THIS RECEIVER. THE FOLLOWING ARE THE NECESSARY PRECAUTIONS TO BE OBSERVED BEFORE SERVICING THIS CHASSIS.

- An isolation transformer should be connected in the power line between the receiver and the AC line before any service is performed on the receiver.
- When replacing a chassis in the cabinet, always be certain that all the protective devices are put back in place, such as; nonmetallic control knobs, insulating covers, shields, isolation resistor-capacitor network etc.
- Always advise users to keep children away. There is danger of injury to children from tools, disassembled products, etc.
- Always disconnect the power plug before starting work whenever power is not required. Failure to disconnect the power plug before starting work can result in electrical shock.
- Depending on the model, use an insulation transformer or wear gloves when servicing with the power on, and disconnect the power plug to avoid electrical shock when replacing parts. In some cases, alternating current is also impressed in the chassis, so electrical shock is possible if the chassis is contacted with the power on.
- Always use the replacement parts specified for the particular model when making repairs. The parts used in products have the necessary safety characteristics such as inflammability, voltage resistance, etc. ; therefore, use only replacement parts that have these same characteristics. Use only the ⚠ specified parts when the mark is include in a circuit diagram or parts list.
- Parts mounting and routing of the wiring should be the same as that used originally. For safety purposes, insulating materials such as tubing or tape is sometimes used and printed circuit boards are sometimes mounted floating. Also make sure that wiring is routed and clamped to avoid parts that generate heat and which use high voltage. Always follow the original scheme.
- After a repair has been completed, reassemble all disassembled pars, and route and reconnect the wiring, in accordance with the original scheme. Do not allow internal wiring to be pinched by cabinets, panels, etc. Any error in reassembly or wiring can result in electrical leakage, flame, etc.,and may be hazardous.
- Never remodel the product in any way. Remodeling can result in improper operation, malfunction, or electrical leakage and flame, which may be hazardous.

## Touch current check

(After completing the work, measure touch current to prevent an electric shock.)

- Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check..

- Connect a measuring network for touch currents between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure D.1

- The potential at any point(TOUCH CURRENT) expressed as voltage $U_1$ and $U_2$ does not exceed the following value:

*The part or contact of a TERMINAL is not HAZARDOUS LIVE if:*

*a) the open-circuit voltage does not exceed 35 V (peak) a.c or 60 V d.c.,*

*or,if a)is not met,*

*b) the measurement of the TOUCH-CURRENT shall be carried out in accordance with IEC 60990, with the measuring network described in annex D of this standard.*

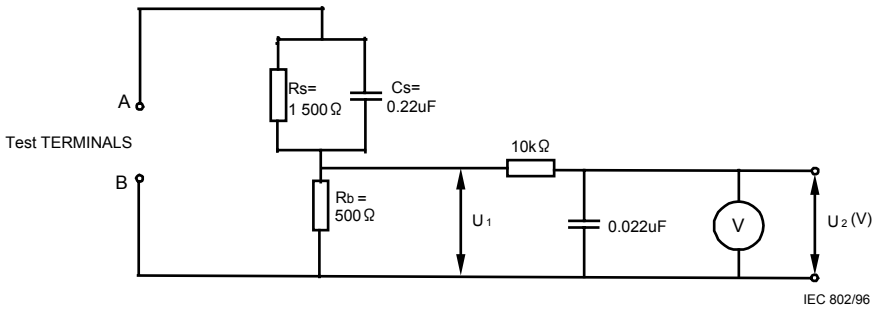
*The TOUCH CURRENT expressed as voltages $U_1$ and $U_2$, does not exceed the following values:*

- *for a.c.:$U_1$= 35 V(peak)and $U_2$=0.35 V (perk);*
- *for d.c.:$U_1$= 1,0 V,*

NOTE 5 -The limit values of $U_2$=0.35 V (peak) for a.c. and $U_1$=1.0 V for d.c. correspond, to the values 0,7mA (peak) a.c. and 2,0 mA 2,0mA d.c.

The limit value $U_1$= 35 V (peak) for a.c. corresponds to the value 70mA (peak) a.c. for frequencies greater than 100 kHz.

Annex D
(normative)
Measuring network for TOUCH CURRENTS




Resistance values in ohms(Ω)

V: Voltmeter or oscilloscope
(r.m.s or peak reading)

Input resistance: ≧1 MΩ

Input capacitance: ≦ 200 pF

Frequency range: 15 Hz to 1 MHz and d.c. respectively

NOTE-Appropriate measures should be taken to obtain the correct value in case of non-sinusoidal waveforms.

The measuring instrument is calibrated by comparing the frequency factor of $U_2$ with the solid line in figure F.2 of IEC 60990 at various frequencies. A calibration curve is constructed showing the deviation of $U_2$ from the ideal curve as a function of frequency.

TOUCH CURRENT=$U_2$/500(peak value)

Fig.D.1

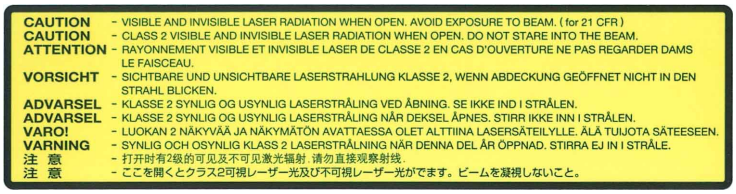
# PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the international hazard symbols on the schematic diagram and the parts list.
Before replacing any of these components, read the parts list in this manual carefully.
The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated " dangerous voltage " within the products enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

## LASER BEAM CAUTION LABEL


CAUTION - VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM. ( for 21 CFR )
CAUTION - CLASS 2 VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. DO NOT STARE INTO THE BEAM.
ATTENTION - RAYONNEMENT VISIBLE ET INVISIBLE LASER DE CLASSE 2 EN CAS D'OUVERTURE NE PAS REGARDER DAMS LE FAISCEAU.
VORSICHT - SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG KLASSE 2, WENN ABDECKUNG GEÖFFNET NICHT IN DEN STRAHL BLICKEN.
ADVARSEL - KLASSE 2 SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING. SE IKKE IND I STRÅLEN.
ADVARSEL - KLASSE 2 SYNLIG OG USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES. STIRR IKKE INN I STRÅLEN.
VARO! - LUOKAN 2 NÄKYVÄÄ JA NÄKYMÄTÖN AVATTAESSA OLET ALTTIINA LASERSÄTEILYLLE. ÄLÄ TUIJOTA SÄTEESEEN.
VARNING - SYNLIG OCH OSYNLIG KLASS 2 LASERSTRÅLNING NÄR DENNA DEL ÅR ÖPPNAD. STIRRA EJ IN I STRÅLE.
注 意 - 打开时有2级的可见及不可见激光辐射 请勿直接观察射线.
注 意 - ここを開くとクラス2可視レーザー光及び不可視レーザー光がでます。ビームを凝視しないこと。

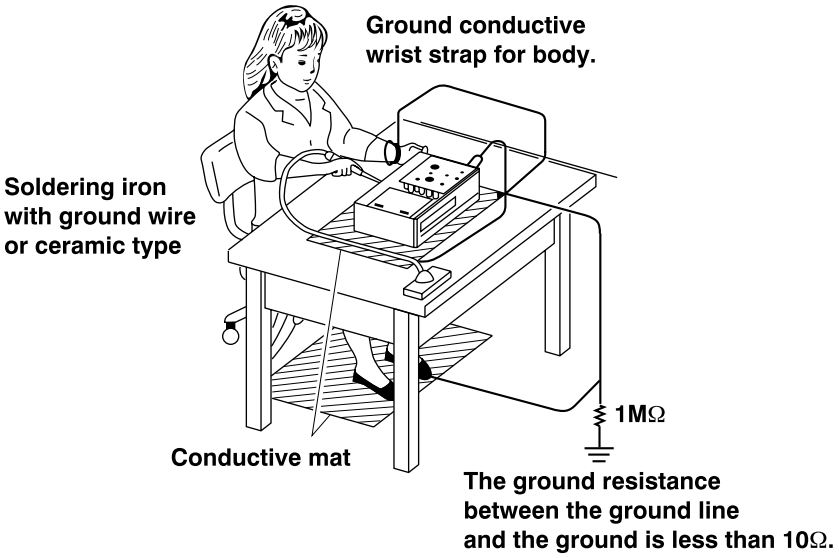
When the power supply is being turned on, you may not remove this laser cautions label. If it removes, radiation of a laser may be received.

## PREPARATION OF SERVICING

Pickup Head consists of a laser diode that is very susceptible to external static electricity.

Although it operates properly after replacement, if it was subject to electrostatic discharge during replacement, its life might be shortened. When replacing, use a conductive mat, soldering iron with ground wire, etc. to protect the laser diode from damage by static electricity.

And also, the LSI and IC are same as above.


Ground conductive wrist strap for body.
Soldering iron with ground wire or ceramic type
1MΩ
Conductive mat
The ground resistance between the ground line and the ground is less than 10Ω.


- Dolby features manufactured under license from Dolby Laboratories. Dolby and the double-D symbol are trademarks of Dolby Laboratories.
- DTS features manufactured under license from Digital Theater Systems, Inc. U.S. Pat. No's. 5,451,942; 5,956,674; 5,974,380; 5,978,762; 6,226,616; 6,487,535 and other U.S. and world-wide patents issued and pending. "DTS" and "DTS Digital Surround" are registered trademarks of Digital Theater Systems, Inc.
  Copyright 1996, 2003 Digital Theater Systems, Inc. All Rights Reserved.
- HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.
- SHARC is a registered trademark and Melody is a trademark of Analog Devices, Inc.
- All other brand and product names mentioned in this manual are trademarks and/or registered trademarks of their respective holders.

# CONTENTS

## SECTION 1
## GENERAL DESCRIPTIONS


1. OPERATING INSTRUCTIONS
2. LOCATION OF MAIN PARTS
   - 2-1. Location of Main Parts
   - 2-2. Location of PC Boards


---

## SECTION 2
## PART REPLACEMENT PROCEDURES


1. REPLACEMENT OF MECHANICAL PARTS
   - 1-1. Front Panel, Front PC Boards
   - 1-2. Main/Power PC Boards
   - 1-3. DVD Drive
2. WIRING CONNECTION DIAGRAM
   - 2-1. Wiring Connection Diagram
   - 2-2. Supplementary Instructions for Reassembling


---

## SECTION 3
## SERVICING DIAGRAMS


1. CIRCUIT SYMBOLS AND SUPPLEMENTARY EXPLANATION
   - 1-1. Precautions for Part Replacement
   - 1-2. Solid Resistor Indication
   - 1-3. Capacitance Indication
   - 1-4. Inductor Indication
   - 1-5. Waveform and Voltage Measurement
   - 1-6. Others
2. PRINTED WIRING BOARD AND SCHEMATIC DIAGRAM
3. BLOCK DIAGRAMS
4. CIRCUIT DIAGRAMS
   - 4-1. Power Supply Circuit Diagram
   - 4-2. Front Circuit Diagram
   - 4-2-1. Front FIP Circuit Diagram
   - 4-2-2. Power Switch Circuit Diagram
   - 4-2-3. Front Switch/USB Circuit Diagram
   - 4-2-4. Front D-Light Circuit Diagram
   - 4-3. RS232C Circuit Diagram
   - 4-4. Main Circuit Diagram
   - 4-4-1. AV Output Circuit Diagram
   - 4-4-2. Timer Circuit Diagram
   - 4-4-3. Video Scaller Circuit Diagram
   - 4-4-4. Video Output Circuit Diagram
   - 4-5. ATAPI Conversion Circuit Diagram
5. PC BOARDS
   - 5-1. Front FIP PC Board
   - 5-2. Power Switch PC Board
   - 5-3. Front Switch/USB PC Board
   - 5-4. ATAPI PC Board
   - 5-5. D-Light PC Board
   - 5-6. RS232C PC Board


---

## SECTION 4
## PARTS LIST


SAFETY PRECAUTION
NOTICE
ABBREVIATIONS
1. EXPLODED VIEWS
   - 1-1. Packing Assembly
   - 1-2. Chassis Assembly
2. PARTS LIST


---

## SUPPLEMENT


SUPPLEMENT1. Firmware Version Update
SUPPLEMENT2. Error Code
SUPPLEMENT3. TROUBLESHOOTING
   - 3-1. Standby LED (red) does not light.
   - 3-2. LED (green) does not light at power on.
   - 3-3. CPU FAN does not work.
   - 3-4. Indicator does not light. (“WELCOME” does not light at startup.)
   - 3-5. System does not run. (“WELCOME” displayed and key operation disabled)
   - 3-6. No picture appears.
   - 3-6-1. No output from HDMI.
   - 3-7. No audio is played back.
   - 3-8. Buzzer does not sound.
   - 3-9. Extension port does not work.
   - 3-10. Front panel keys/remote control are disabled.
   - 3-11. Other Symptoms
   - 3-12. Power Circuit Troubleshooting

# SECTION 1
# GENERAL DESCRIPTIONS

## 1. OPERATING INSTRUCTIONS

Please refer to the owner's manual about the contents.

# 2. LOCATION OF MAIN PARTS

## 2-1. Location of Main Parts

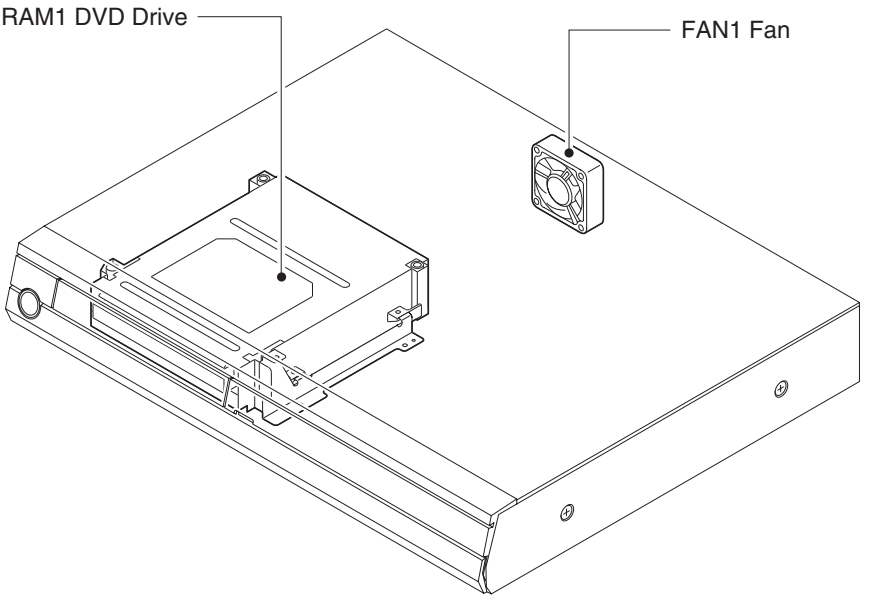



**Fig. 1-2-1**

## 2-2. Location of PC Boards

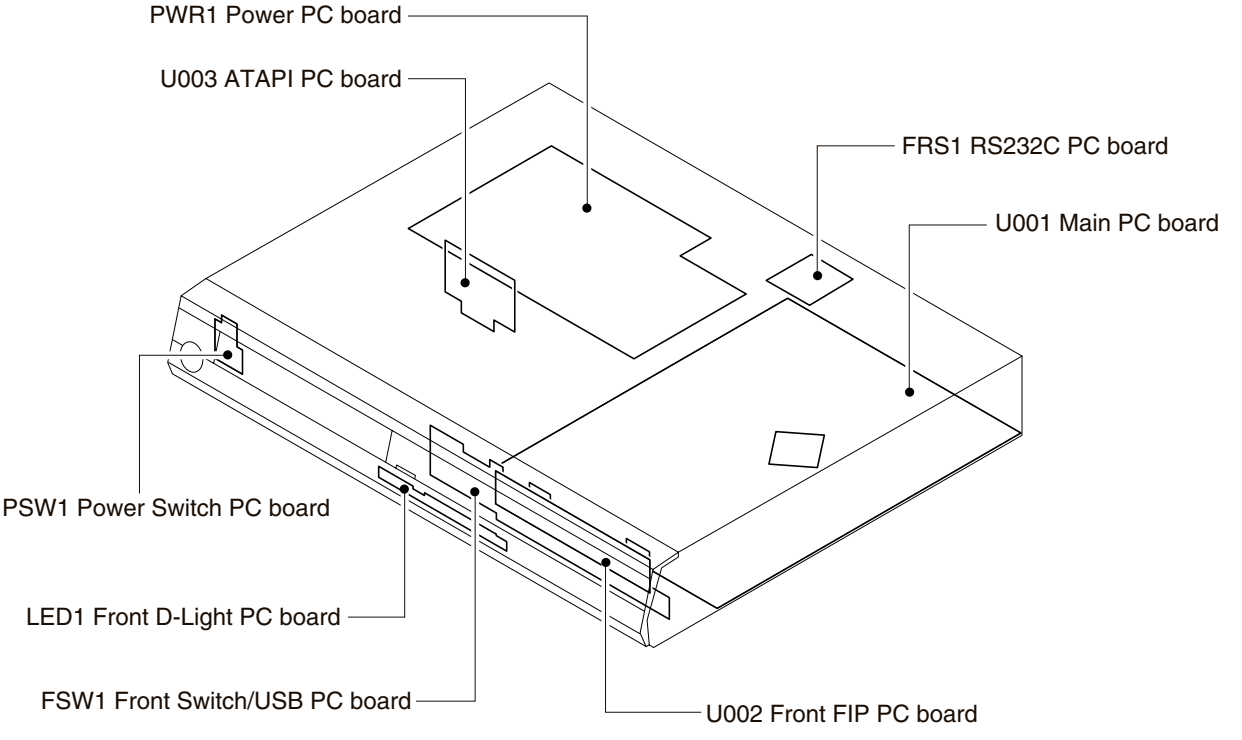

PWR1 Power PC board
U003 ATAPI PC board
FRS1 RS232C PC board
U001 Main PC board
PSW1 Power Switch PC board
LED1 Front D-Light PC board
FSW1 Front Switch/USB PC board
U002 Front FIP PC board

**Fig. 1-2-2**

# SECTION 2
# PART REPLACEMENT PROCEDURES

## CAUTIONS BEFORE STARTING PART REPLACEMENT

Electronic parts are susceptible to static electricity and may easily damaged, so do not forget to ground as required. Many screws are used inside the unit. To prevent the screws from missing or dropping, etc. always use a magnetized screwdriver in servicing. Several kinds of screws are used and some of them need special cautions. That is, take care of the tapping screws securing molded parts and fine pitch screws used to secure metal parts. If they are used improperly, the screw holes will be easily damaged and the parts can not be fixed.



## 1. REPLACEMENT OF MECHANICAL PARTS

**Note:**

- Circled numbers in the figure show the main disassembly procedure. Refer to them when disassembling.

### 1-1. Front Panel, Front PC Boards

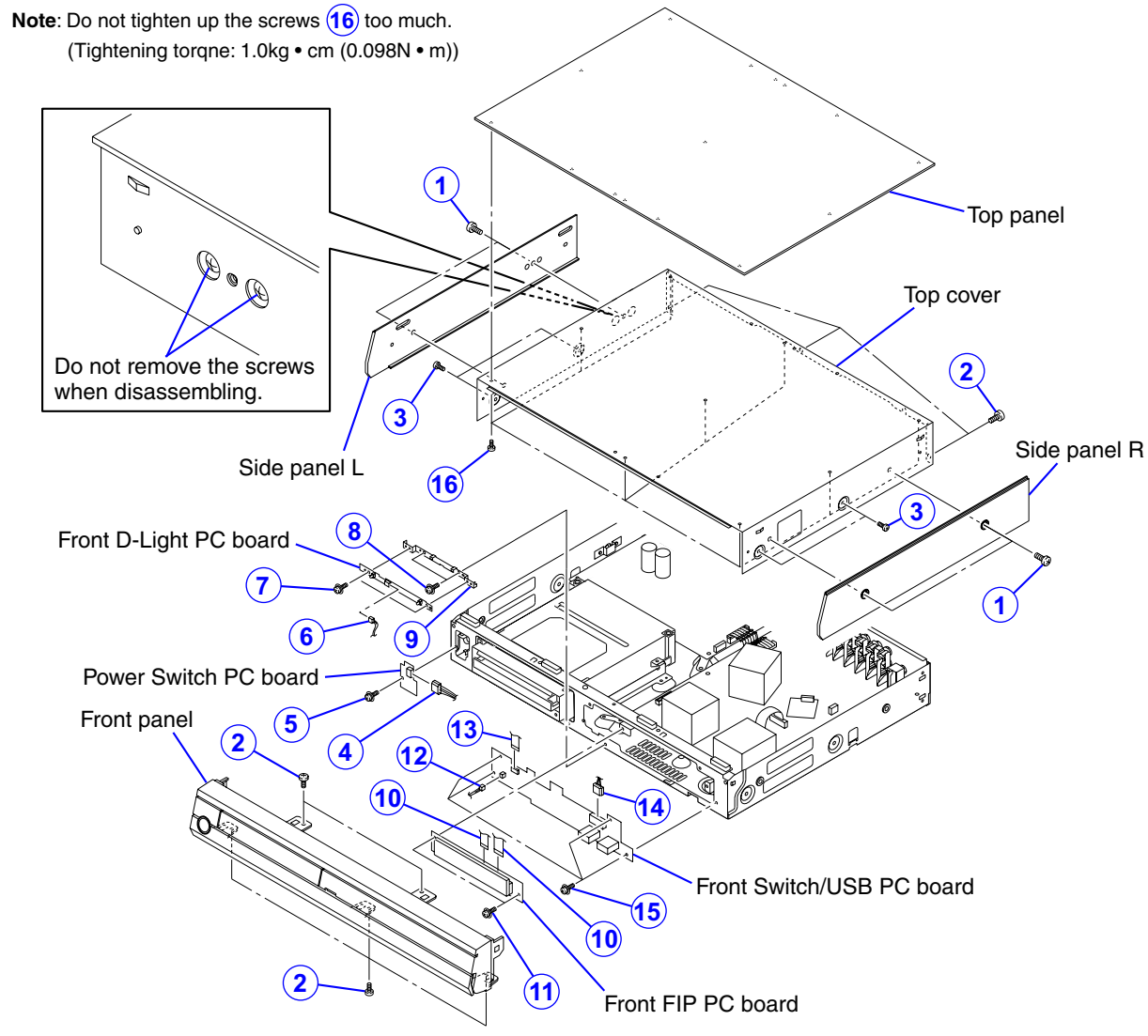



Fig. 2-1-1

## 1-2. Main/Power PC Boards

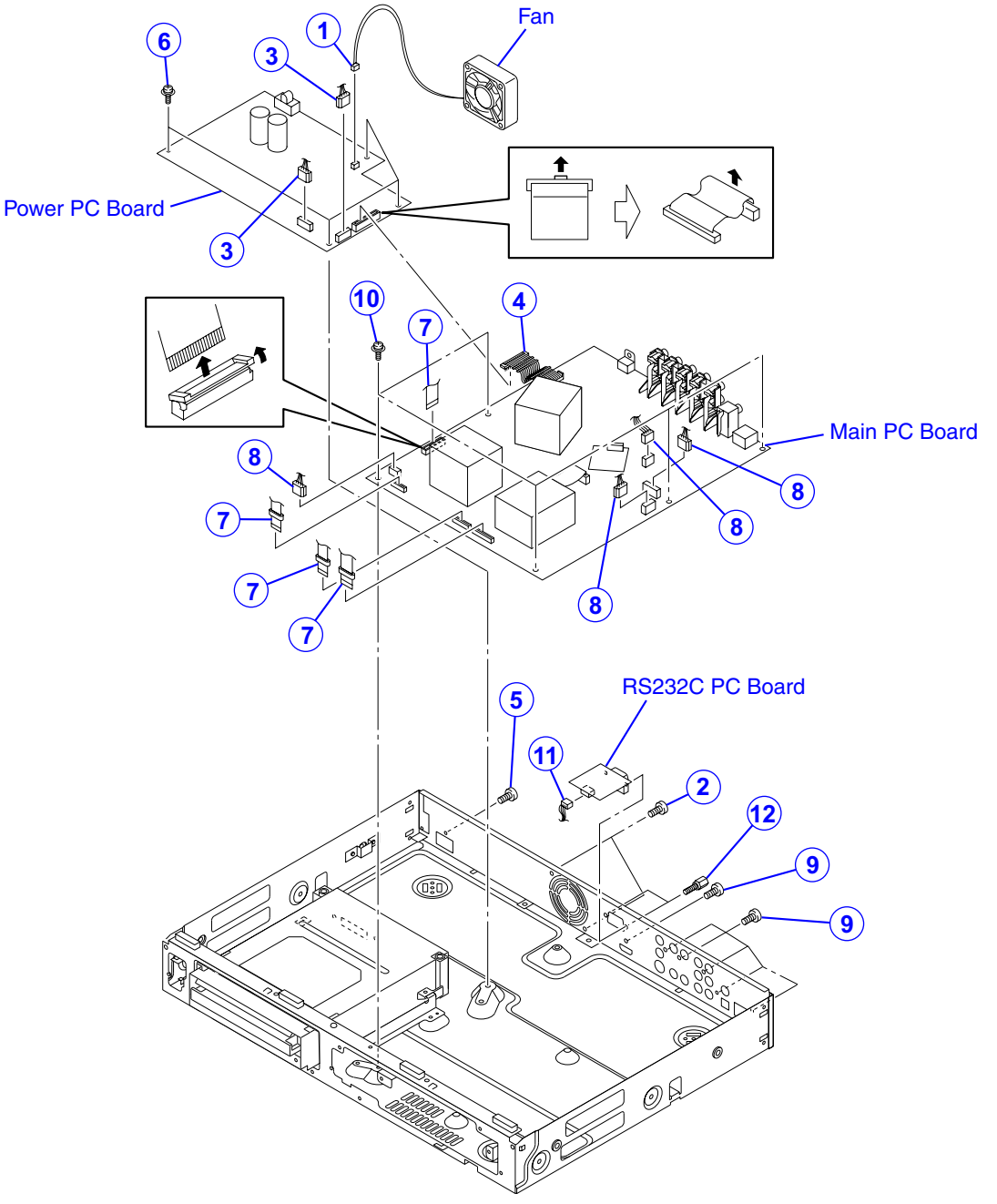



Fig. 2-1-2

## 1-3. DVD Drive

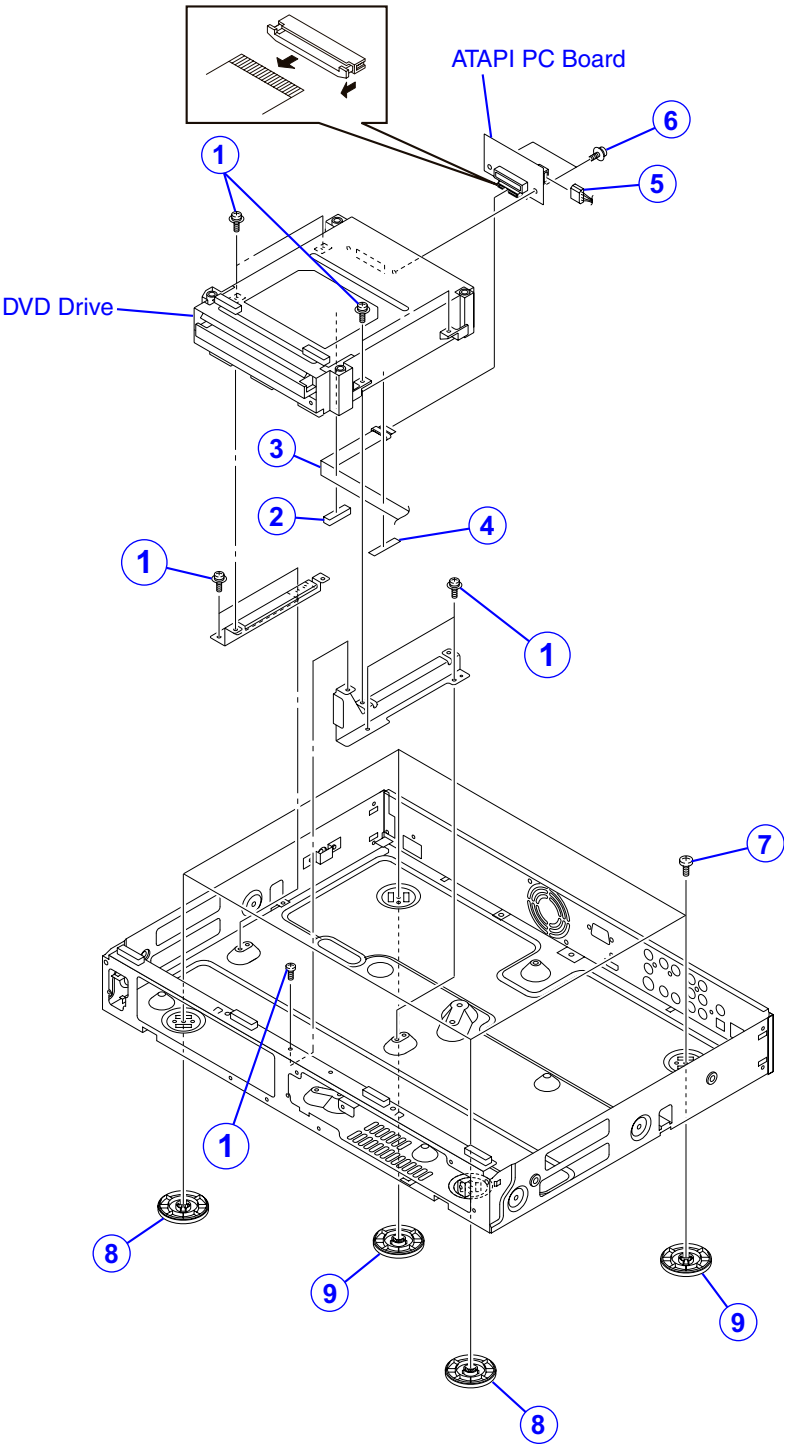



Fig. 2-1-3

# 2. WIRING CONNECTION DIAGRAM

## 2-1. Wiring Connection Diagram

After the servicing is complete, return the wiring to its original state by using the diagram below as a reference.

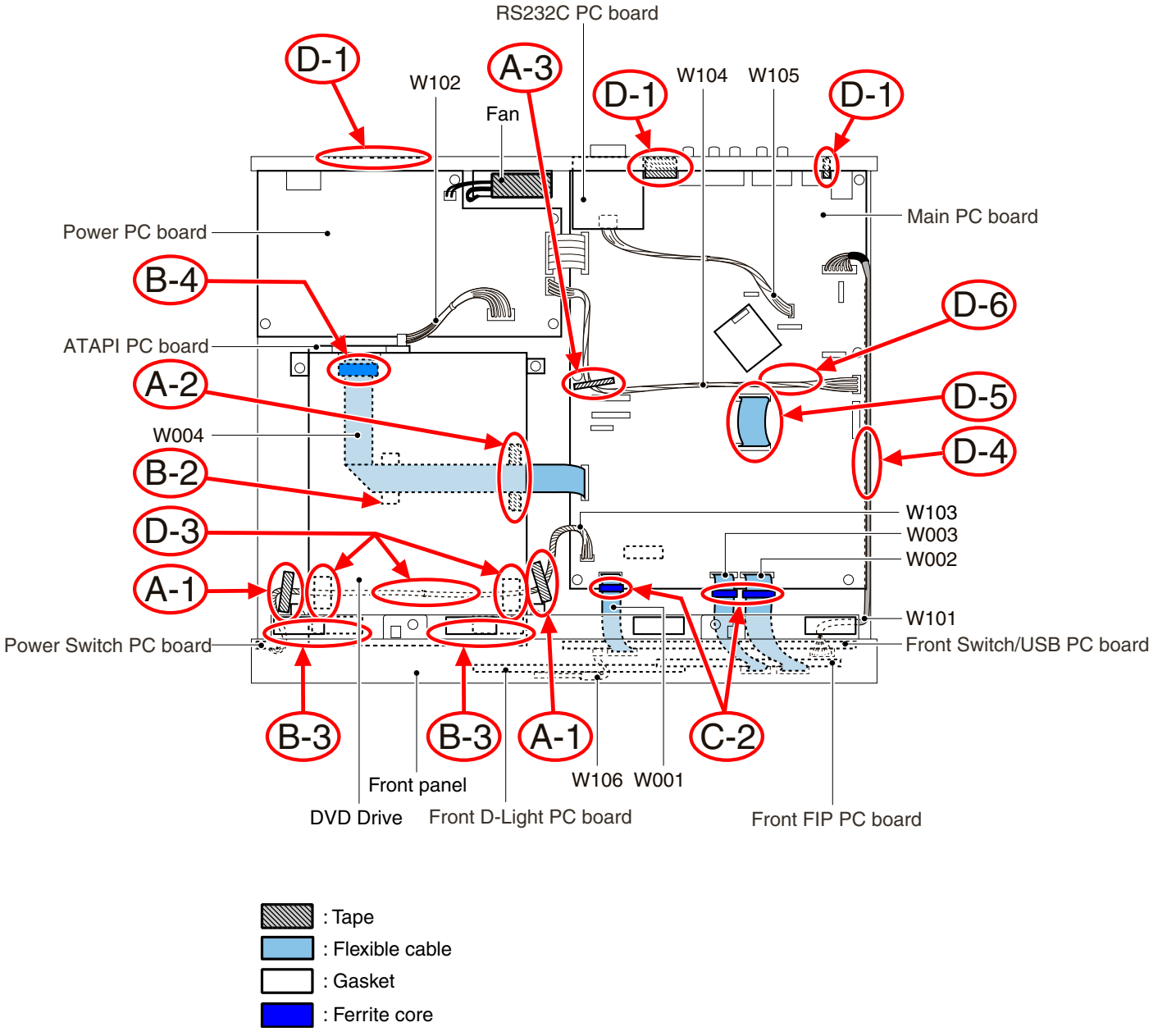
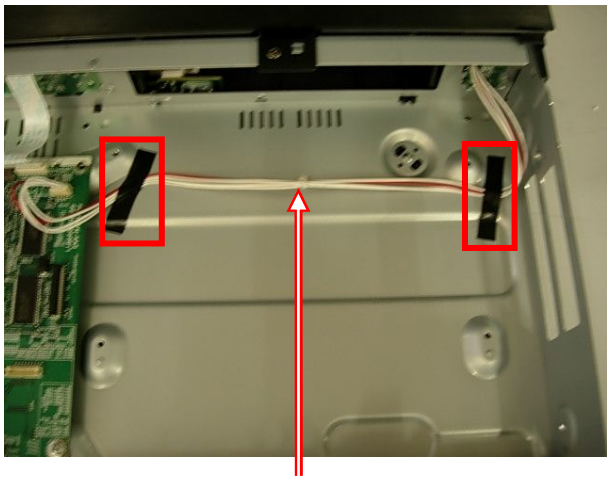



**Fig. 2-2-1**

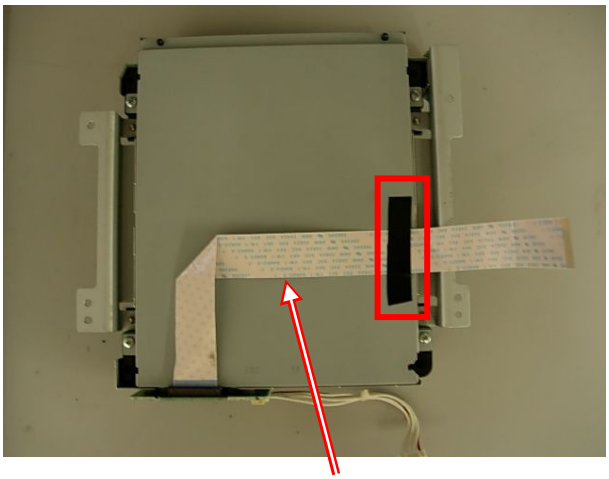
2-2. Supplementary Instructions for Reassembling

A-1. Fix the wire (W103) with two tapes (TAPE-PET-W10-L50).

A-2. Fix the FFC (W104) with the tape (TAPE-PET-W10-L50).



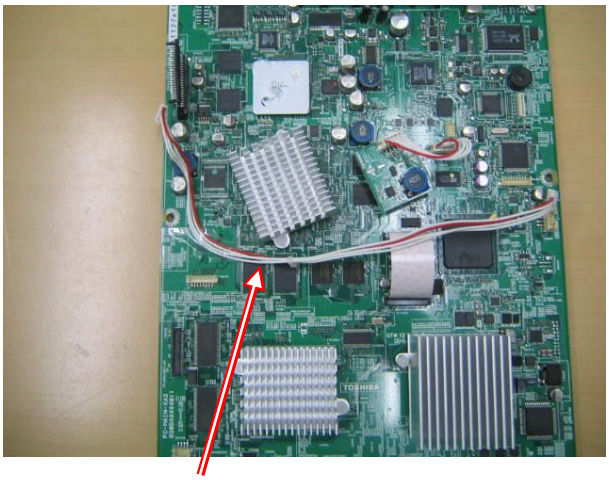
W103



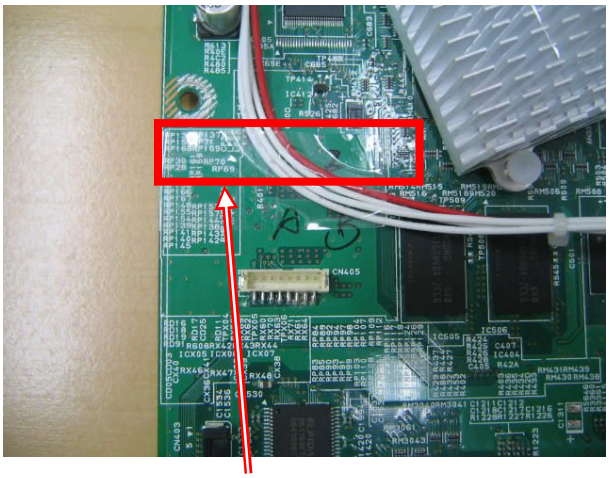
W104

A-3. Fix the wire (W004) with the tape (TAPE-PET-W10-L50).

(Fixed position : Between CN405 and C60D)

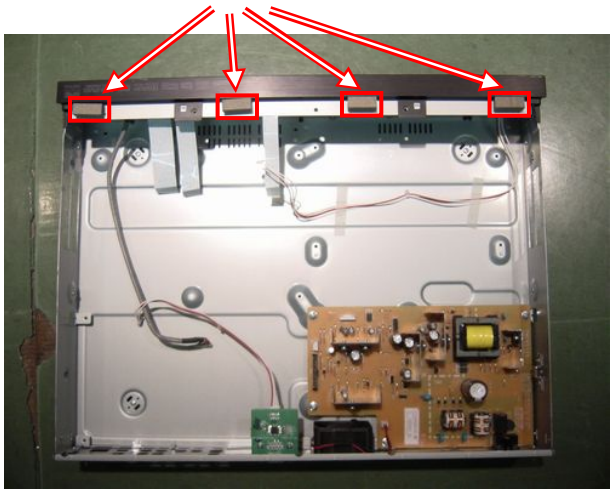


W004



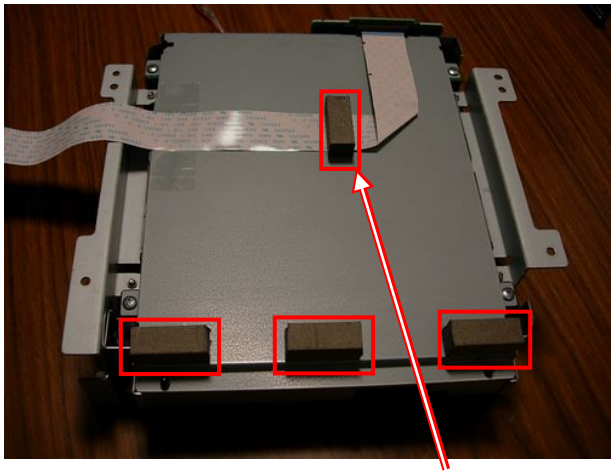
Fix (Between CN405 and C60D)

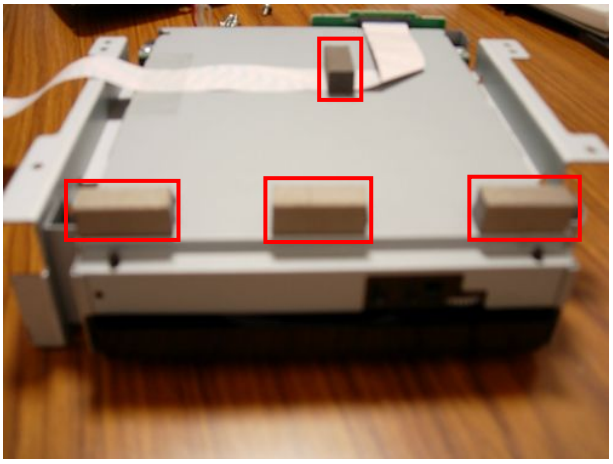
B-1. Paste the gasket to 4 places of the upper surface of front panel.



B-2. Paste gaskets to the following positions in the lower side of DVD drive.

(Gasket : SSTG10-10 L25HC(GD9D00000080)



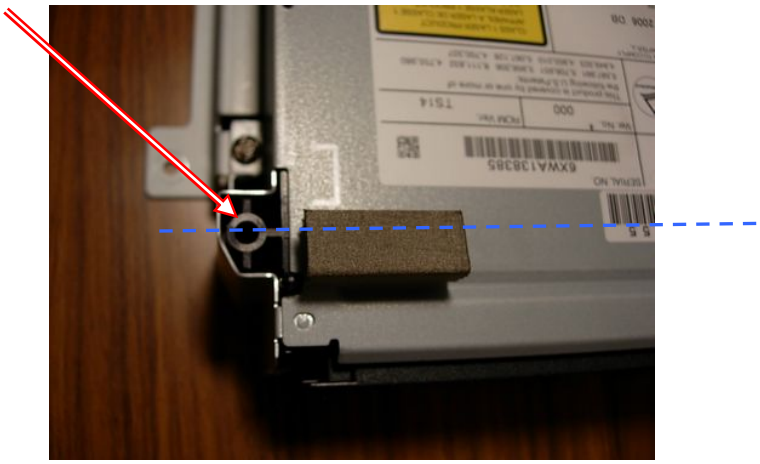


Paste the gasket just behind folded FFC.

B-3. Paste gaskets to the following positions in the upper side of DVD drive.

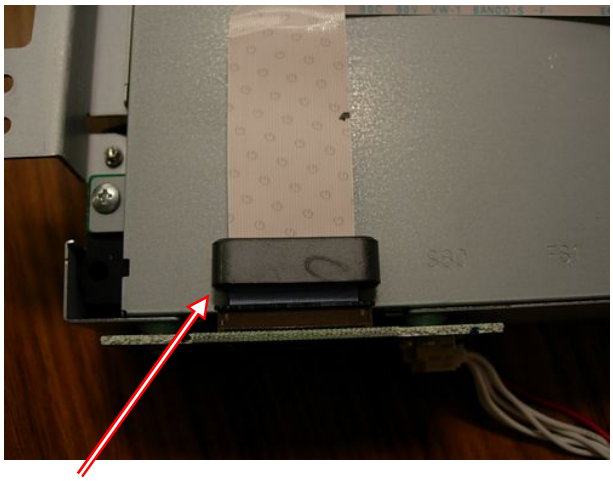
(Gasket : SSTG10-10 L25HC(GD9D00000080)

Paste gasket to the position where a semicircle part of the hole of molde this DVD drive correspond to the edge of Gasket.

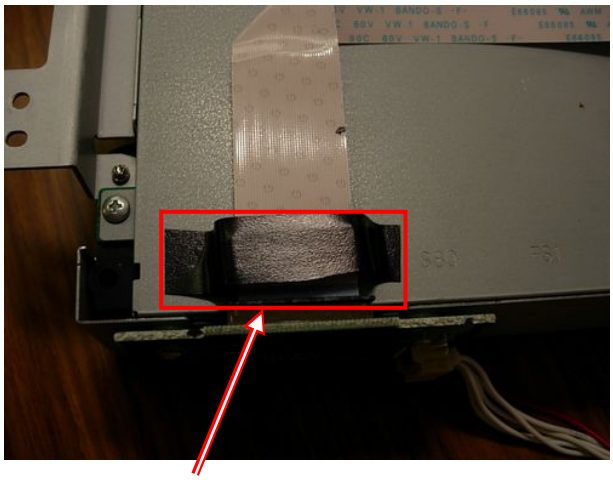


B-4. Attatch ferrite core (HF70SH22*0.8*7：PM0009691010) to FFC between DVD drive and main board.

(fixed position : just behind PC board side of DVD drive, Use TAPE-PET-W10-L50)



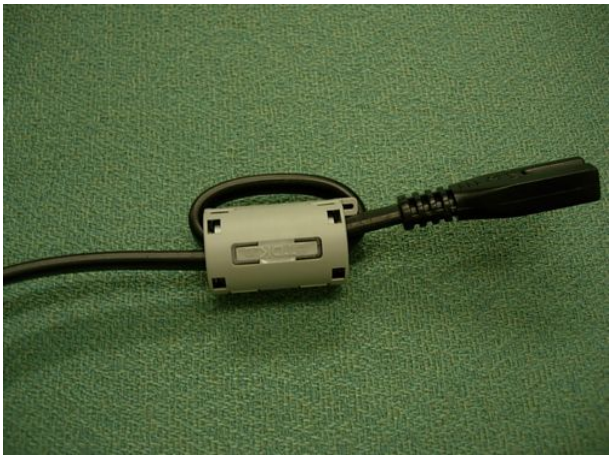
ferrite core (HF70SH22*0.8*7：PM0009691010)

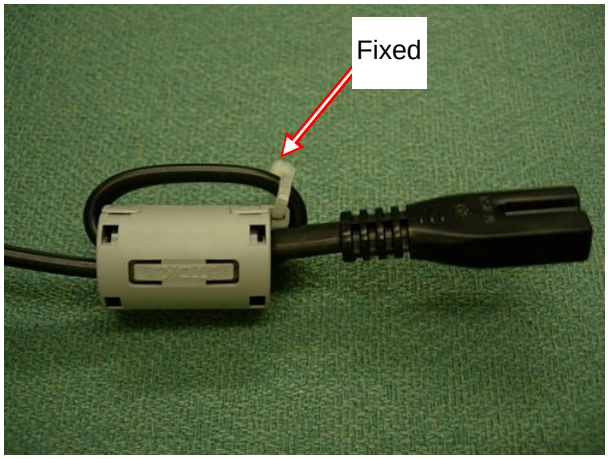


TAPE-PET-W10-L50

C-1.Attach ferrite core Z001F(PM0007982010:ZCAT2132-1130) to the power code. Roll the power code twice.

(HD-XE1KE has two power codes. Attach ferrite core on each power code.)

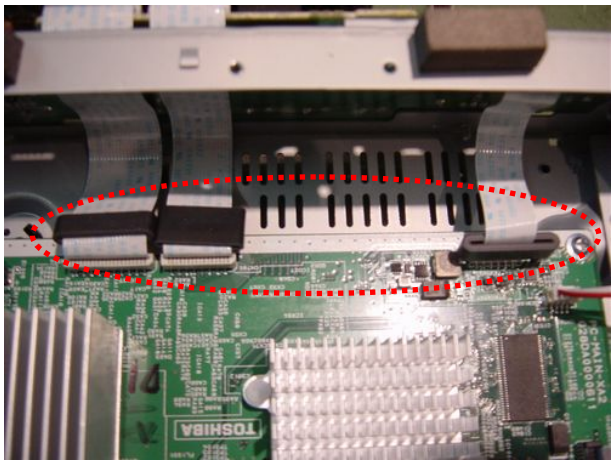


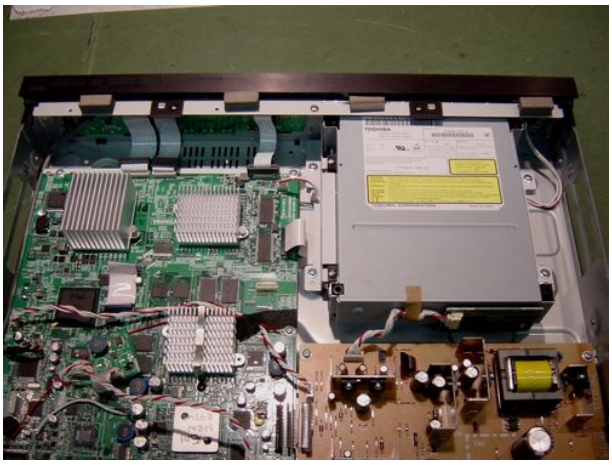



C-2.Attach ferrite cores(HF70SH22*0.8*7:PM0009691010) for FFC(W001,W002,W003) of between Front and Main.

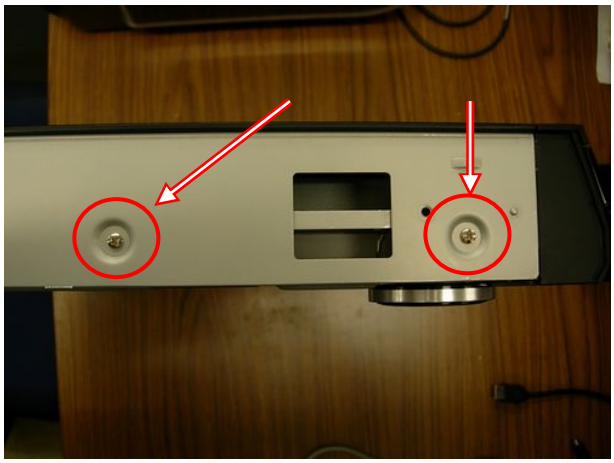
Fix three cores with the tape respectively (TAPE-PET-W10-L50).

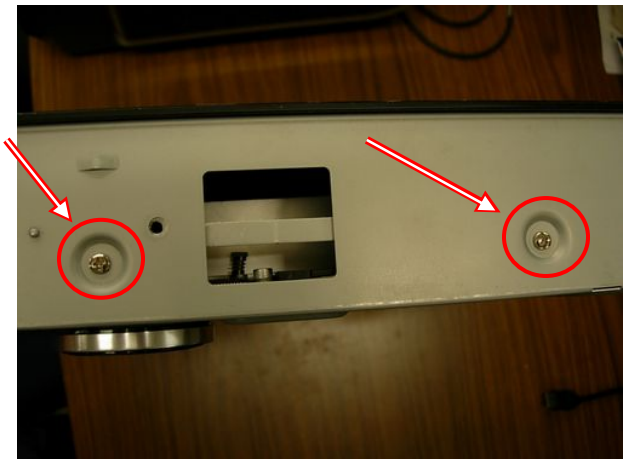
(Fixed position : Main side)





C-3.Fix right and left both sides of top cover with the screw. (Screw : BITTS 3x6)



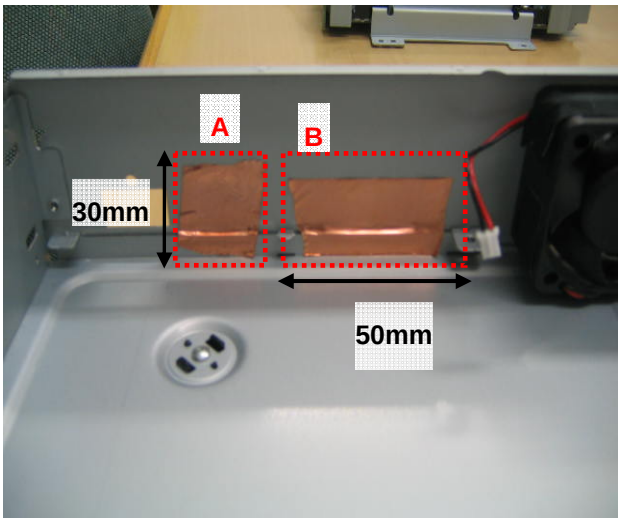


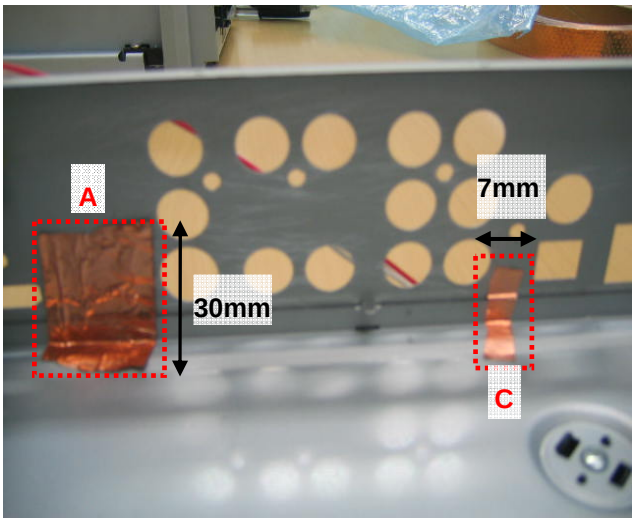
D-1.Paste the aluminum tapes to the position of A, B, and C.

Position A : 25mm(Tape Width) X 30mm

Position B : 25mm(Tape Width) X 50mm

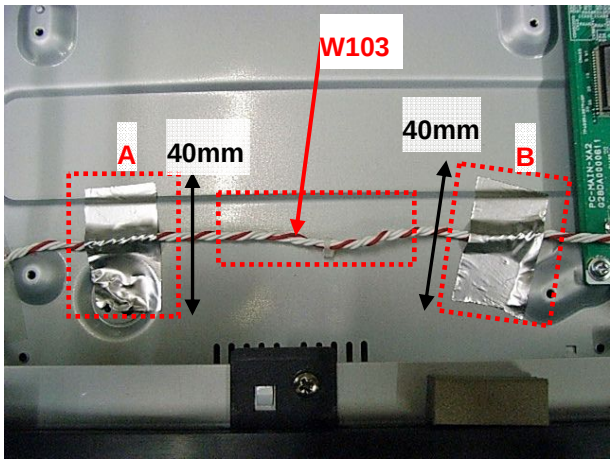
Position C : 25mm(Tape Width) X 7mm



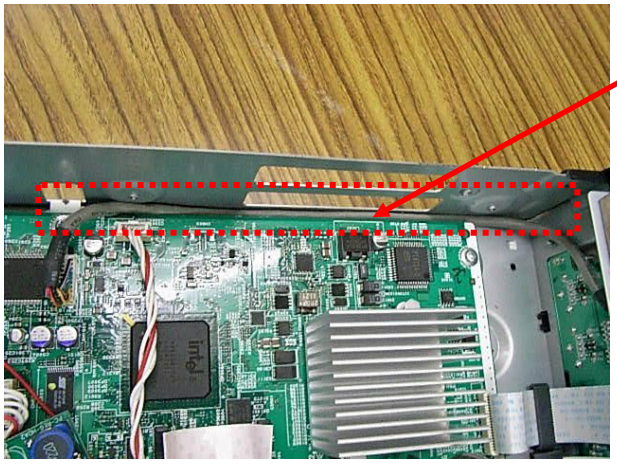




D-2.Twist W103.

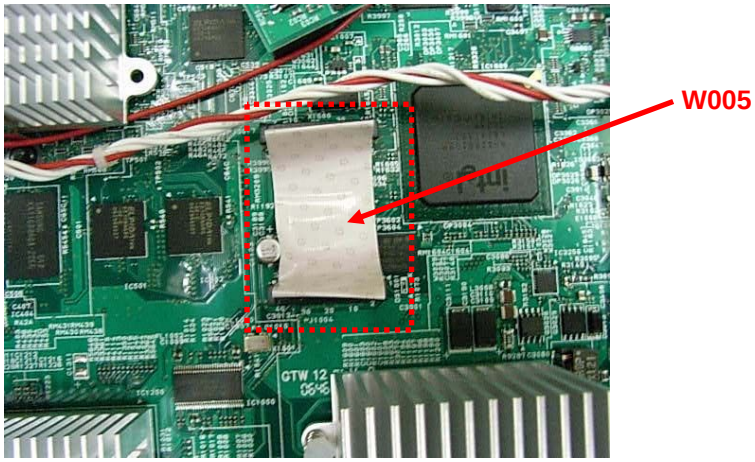
D-3.Fix the wire (W103) to the following position (A and B) with two aluminum tapes (GY4D00000030, Parts Name: AL-25T, Tape Width : 40mm).



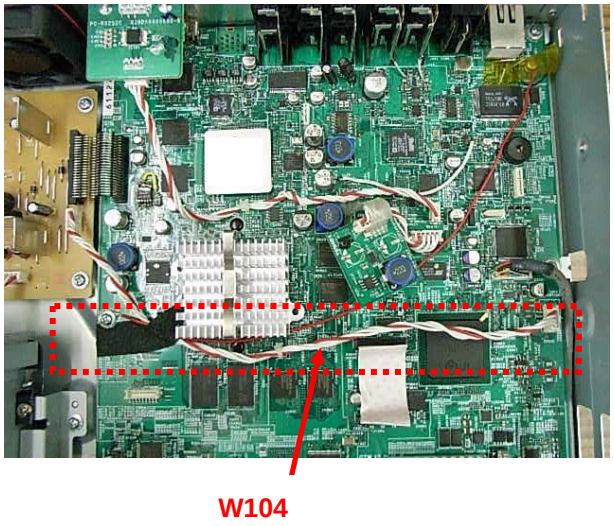

D-4.Insert the USB wire (W101) to the space of main unit and chassis.



D-5.Press W005 to PCB side.




D-6.Twist W104.



# SECTION 3
# SERVICING DIAGRAMS

## 1. CIRCUIT SYMBOLS AND SUPPLEMENTARY EXPLANATION

### 1-1. Precautions for Part Replacement

- In the schematic diagram, parts marked ⚠ (ex. ⚠ F801) are critical part to meet the safety regulations, so always use the parts bearing specified part codes (SN) when replacing them.
- Using the parts other than those specified shall violate the regulations, and may cause troubles such as operation failures, fire etc.

### 1-2. Solid Resistor Indication

| | |
|---|---|
| **Unit** | None .....Ω<br>K .....kΩ<br>M .....MΩ |
| **Tolerance** | None .....±5%<br>B .....±0.1%<br>C .....±0.25%<br>D .....±0.5%<br>F .....±1%<br>G .....±2%<br>K .....±10%<br>M .....±20% |
| **Rated Wattage** | (1) Chip Parts<br>None .....1/16W<br>(2) Other Parts<br>None .....1/6W<br>Other than above, described in the Circuit Diagram. |
| **Type** | None .....Carbon film<br>S .....Solid<br>R .....Oxide metal film<br>M .....Metal film<br>W .....Cement<br>FR .....Fusible |

**Eg. 1**

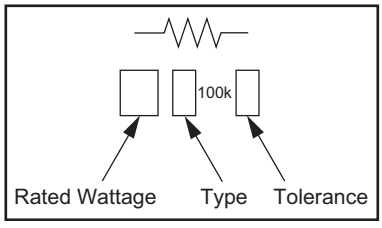



**Fig. 3-1-1**

### 1-3. Capacitance Indication

| | |
|---|---|
| **Symbol** | .....Electrolytic, Special electrolytic<br>.....Non polarity electrolytic<br>.....Ceramic, plastic<br>.....Film<br>.....Trimmer |
| **Unit** | None .....F<br>µ .....µF<br>p .....pF |
| **Rated voltage** | None .....50V<br>For other than 50V and electrolytic capacitors, described in the Circuit Diagram. |
| **Tolerance** | (1) Ceramic, plastic, and film capacitors of which capacitance are more than 10 pF.<br>None .....±5% or more<br>B .....±0.1%<br>C .....±0.25%<br>D .....±0.5%<br>F .....±1%<br>G .....±2%<br>(2) Ceramic, plastic, and film capacitors of which capacitance are 10 pF or less.<br>None .....more than ±5 pF<br>B .....±0.1 pF<br>C .....±0.25 pF<br>(3) Electrolytic, Trimmer<br>Tolerance is not described. |
| **Temperature characteristic (Ceramic capacitor)** | None .....SL<br>For others, temperature characteristics are described. (For capacitors of 0.01 µF and no indications are described as F.) |
| **Static electricity capacity (Ceramic capacitor)** | Sometimes described with abbreviated letters as shown in Eg. 3. |

**Eg. 2**

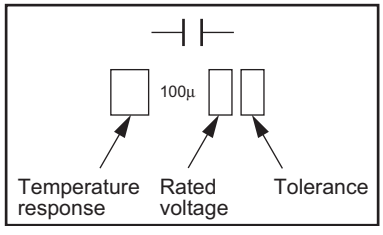



**Fig. 3-1-2**

**Eg. 3**

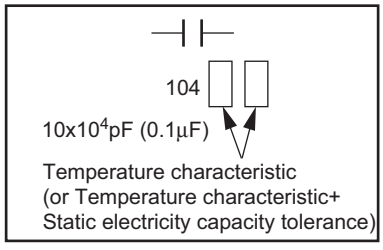



**Fig. 3-1-3**

## 1-4. Inductor Indication

| | |
|---|---|
| **Unit** | None ..... H<br>µ ..... µH<br>m ..... mH |
| **Tolerance** | None .....±5%<br>B .....±0.1%<br>C .....±0.25%<br>D .....±0.5%<br>F .....±1%<br>G .....±2%<br>K .....±10%<br>M .....±20% |

**Eg. 4**

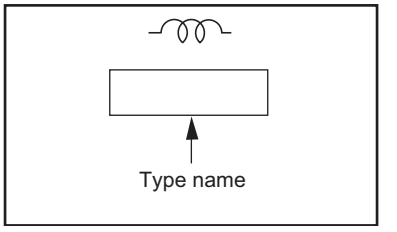



**Fig. 3-1-4**

## 1-5. Waveform and Voltage Measurement

- The waveforms for CD/DVD and RF shown in the circuit diagrams are obtained when a test disc is played back.
- All voltage values except the waveforms are expressed in DC and measured by a digital voltmeter.

**Eg. 5**

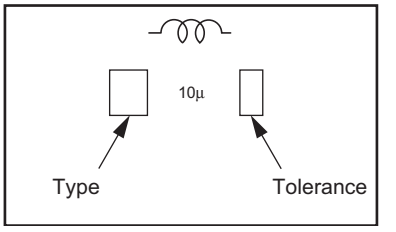
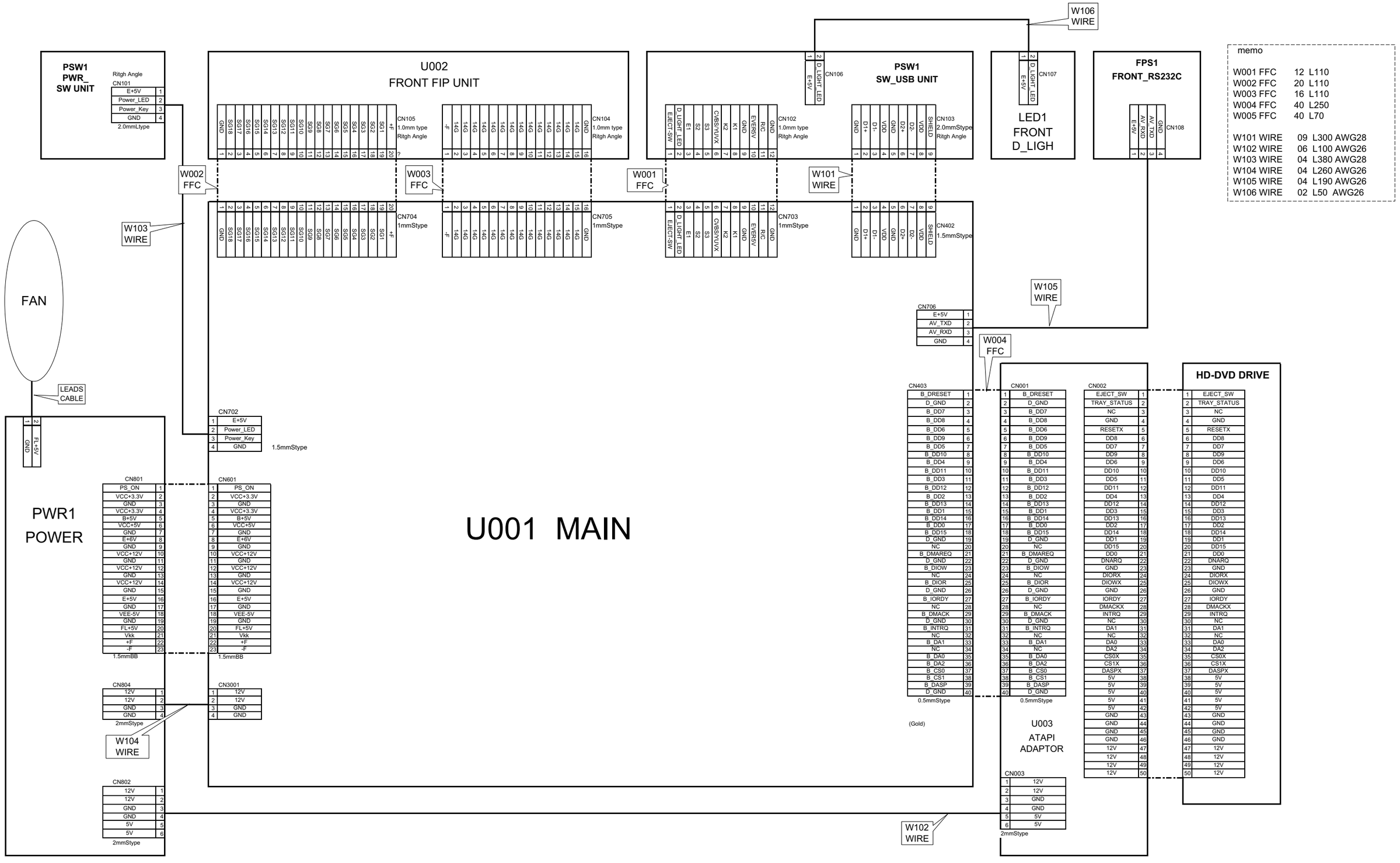



**Fig. 3-1-5**

## 1-6. Others

- The parts indicated with "NC" or "KETU" etc. are not used in the circuits of this model.

# 2. PRINTED WIRING BOARD AND SCHEMATIC DIAGRAM




memo

| | | |
|---|---|---|
| W001 FFC | 12 | L110 |
| W002 FFC | 20 | L110 |
| W003 FFC | 16 | L110 |
| W004 FFC | 40 | L250 |
| W005 FFC | 40 | L70 |
| W101 WIRE | 09 | L300 AWG28 |
| W102 WIRE | 06 | L100 AWG26 |
| W103 WIRE | 04 | L380 AWG28 |
| W104 WIRE | 04 | L260 AWG26 |
| W105 WIRE | 04 | L190 AWG26 |
| W106 WIRE | 02 | L50 AWG26 |

**Fig. 3-2-1**

## 3. BLOCK DIAGRAMS

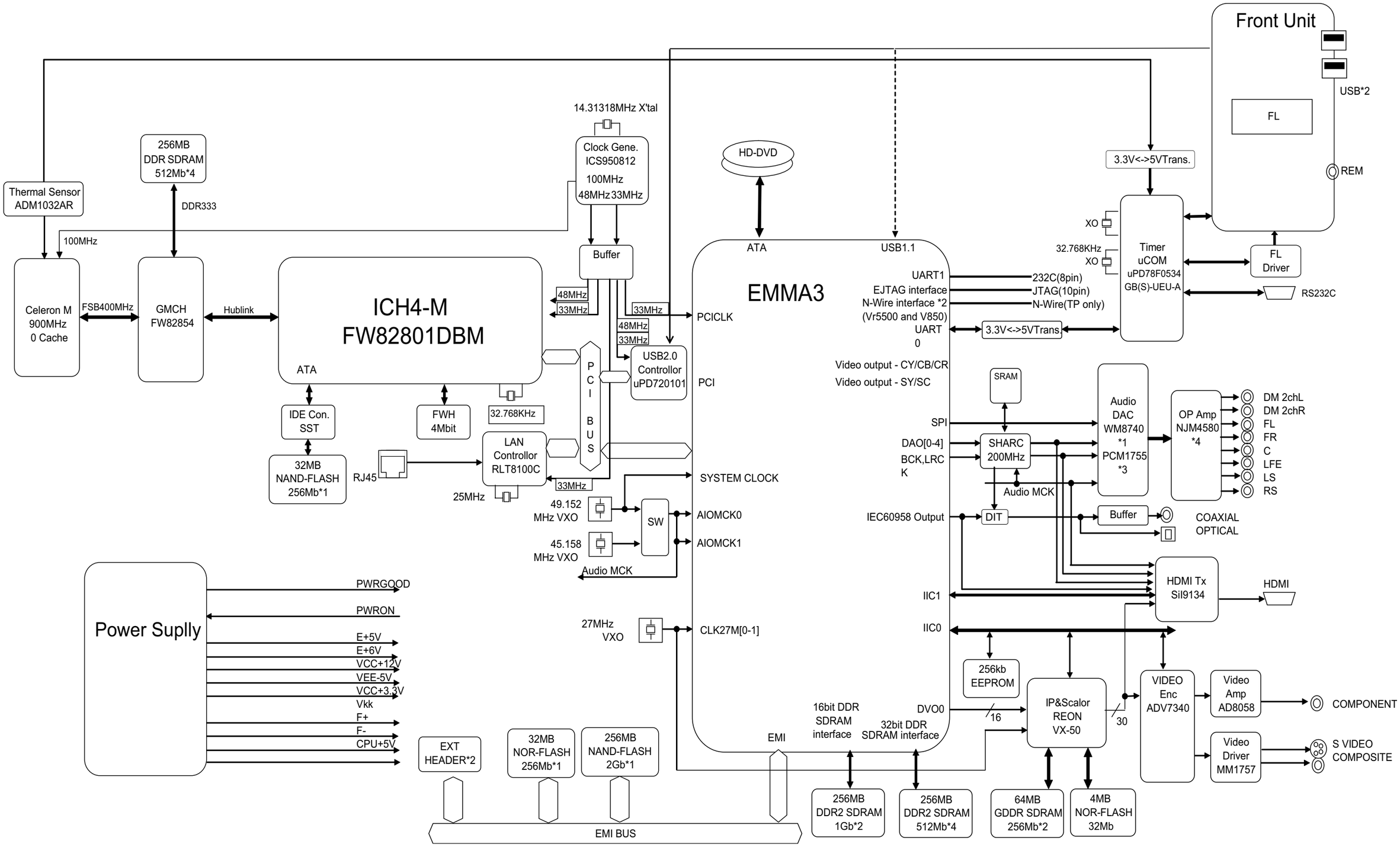
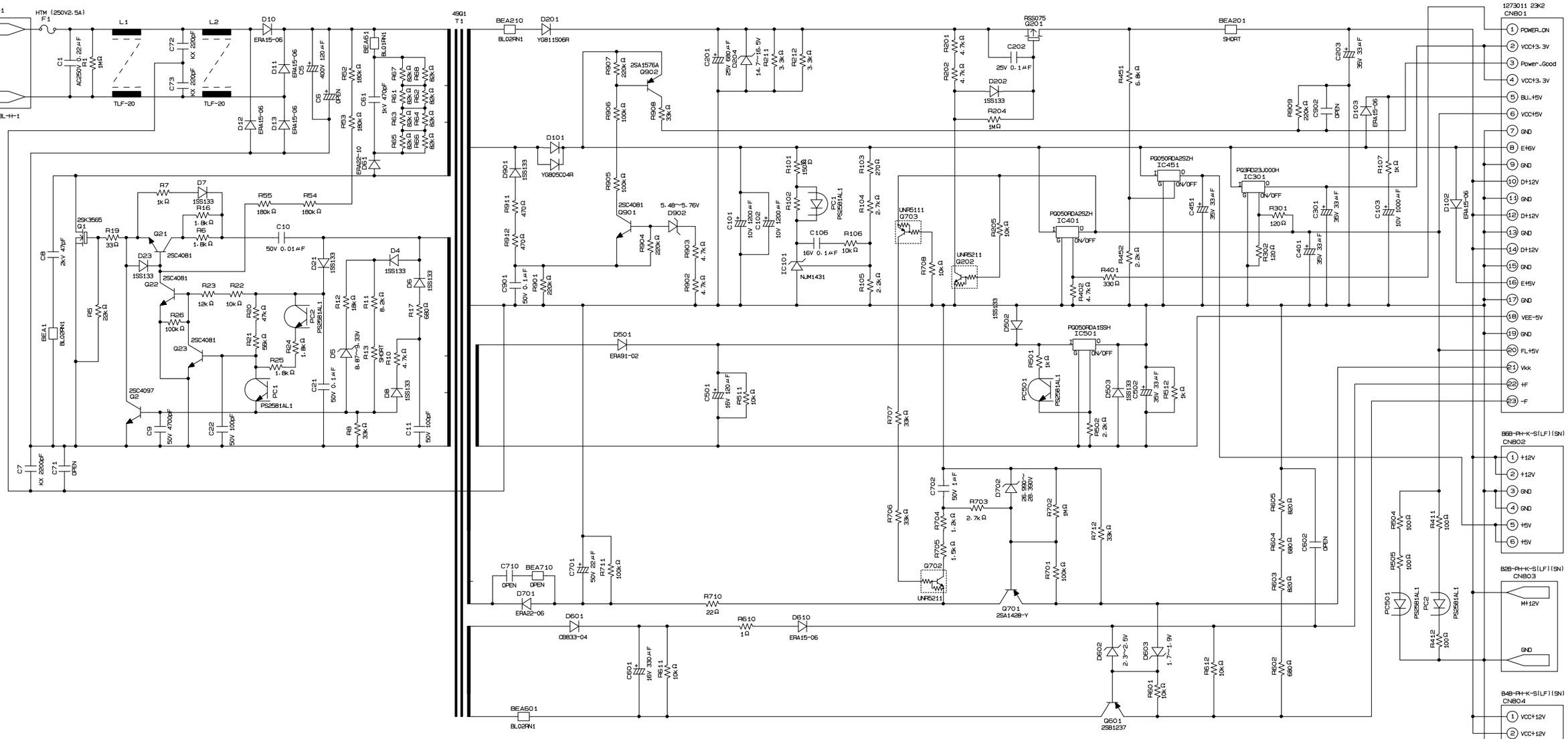



**Fig. 3-3-1**

# 4. CIRCUIT DIAGRAMS

## 4-1. Power Supply Circuit Diagram




MPN5115P

**Fig. 3-4-1**

## 4-2. Front Circuit Diagram

### 4-2-1. Front FIP Circuit Diagram

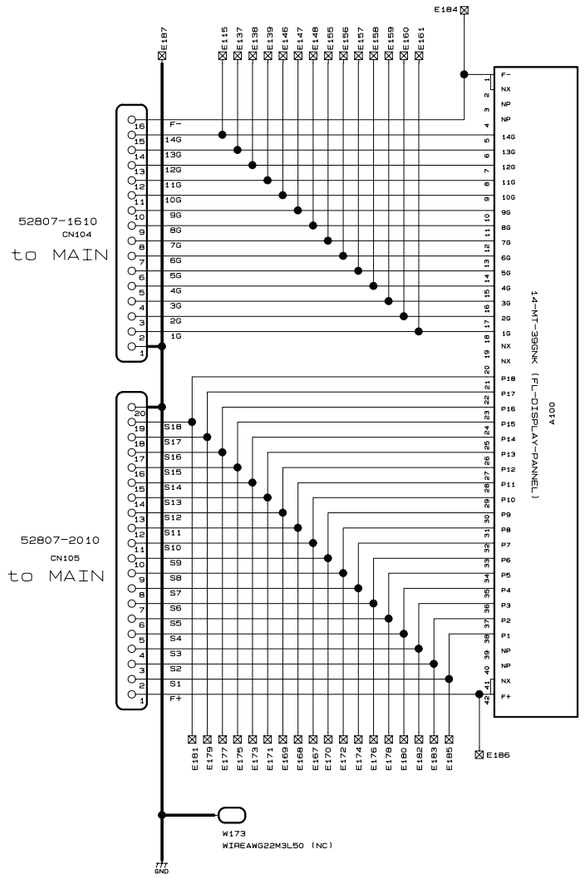



Fig. 3-4-2

## 4-2-2. Power Switch Circuit Diagram

| | |
|---|---|
| D121 | Not use |
| D122 | Use |

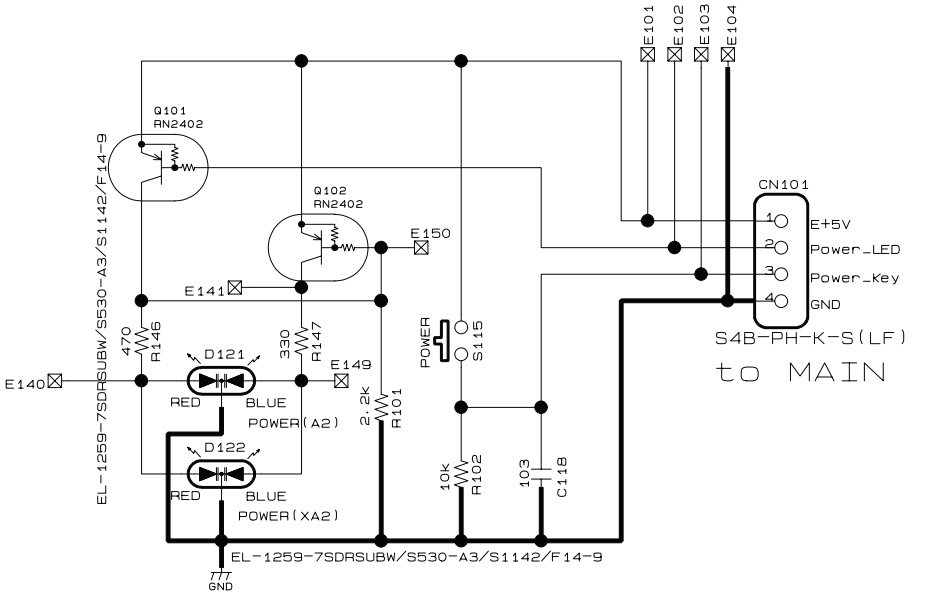
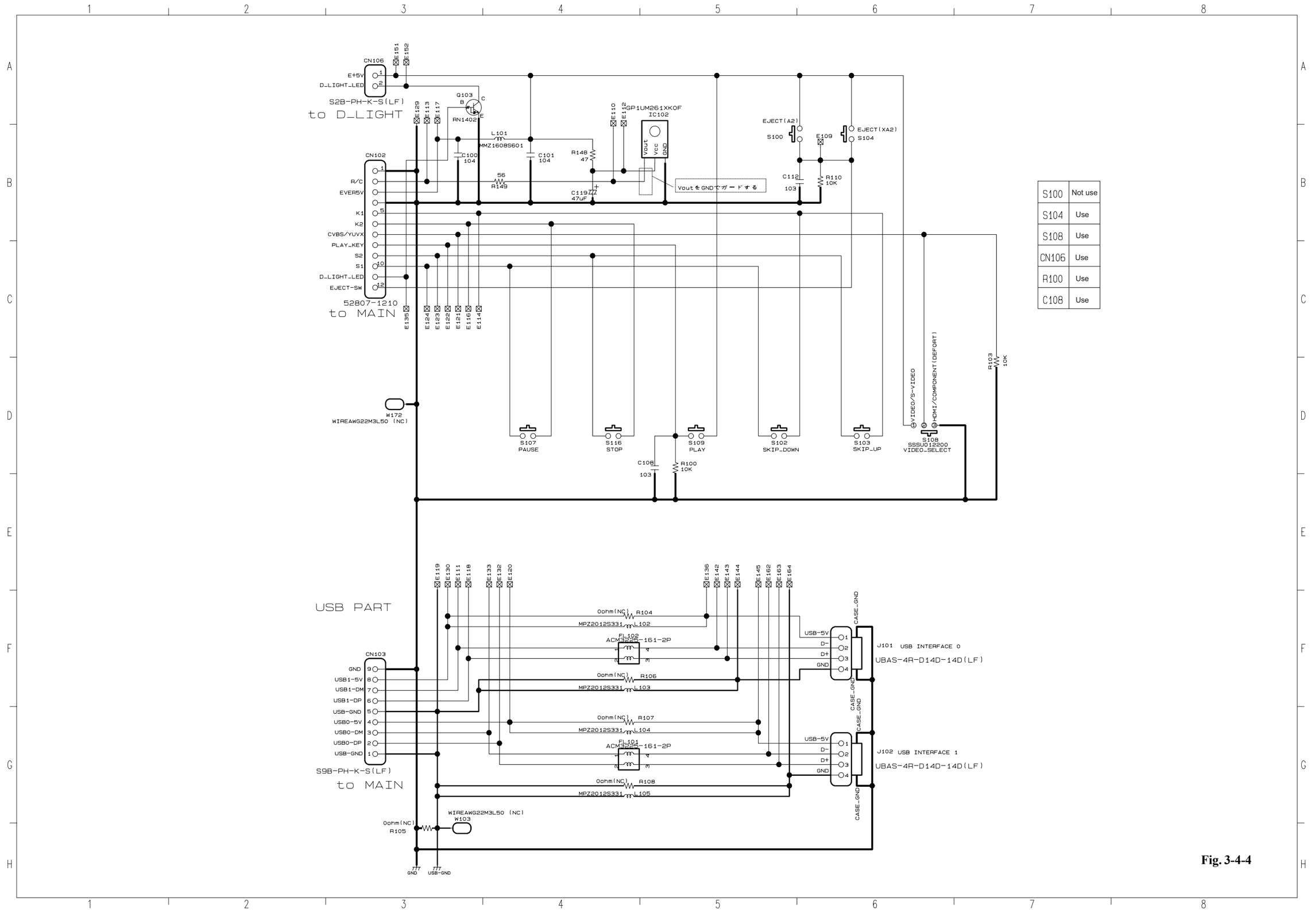



Fig. 3-4-3

## 4-2-3. Front Switch/USB Circuit Diagram




| | |
|---|---|
| S100 | Not use |
| S104 | Use |
| S108 | Use |
| CN106 | Use |
| R100 | Use |
| C108 | Use |

**Fig. 3-4-4**

**4-2-4. Front D-Light Circuit Diagram**

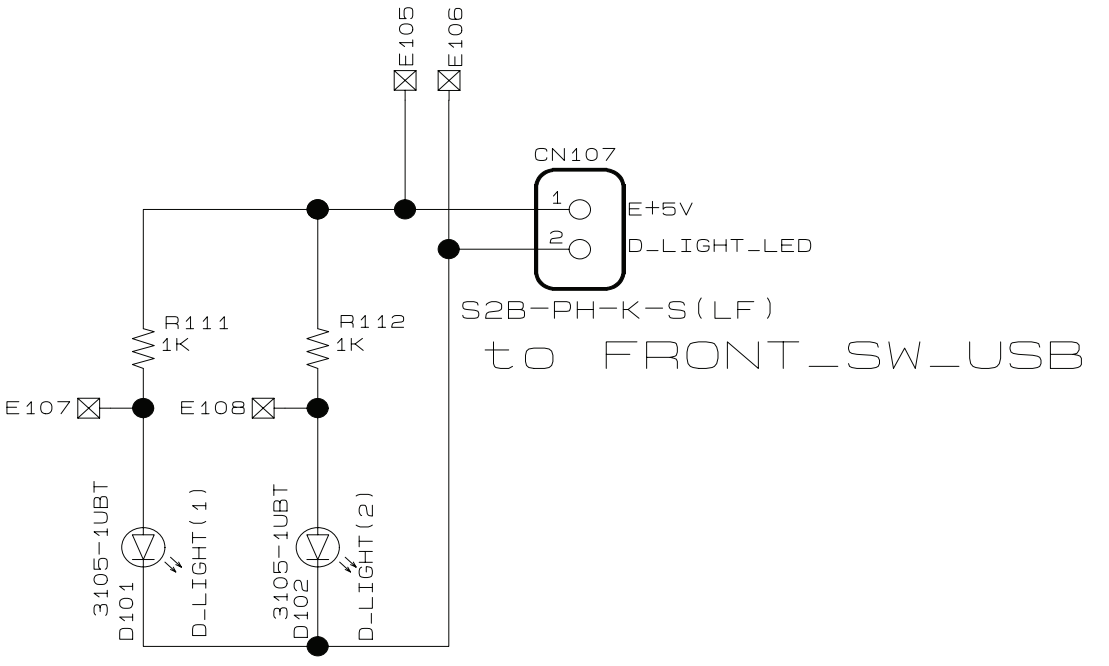



**Fig. 3-4-5**

## 4-3. RS232C Circuit Diagram

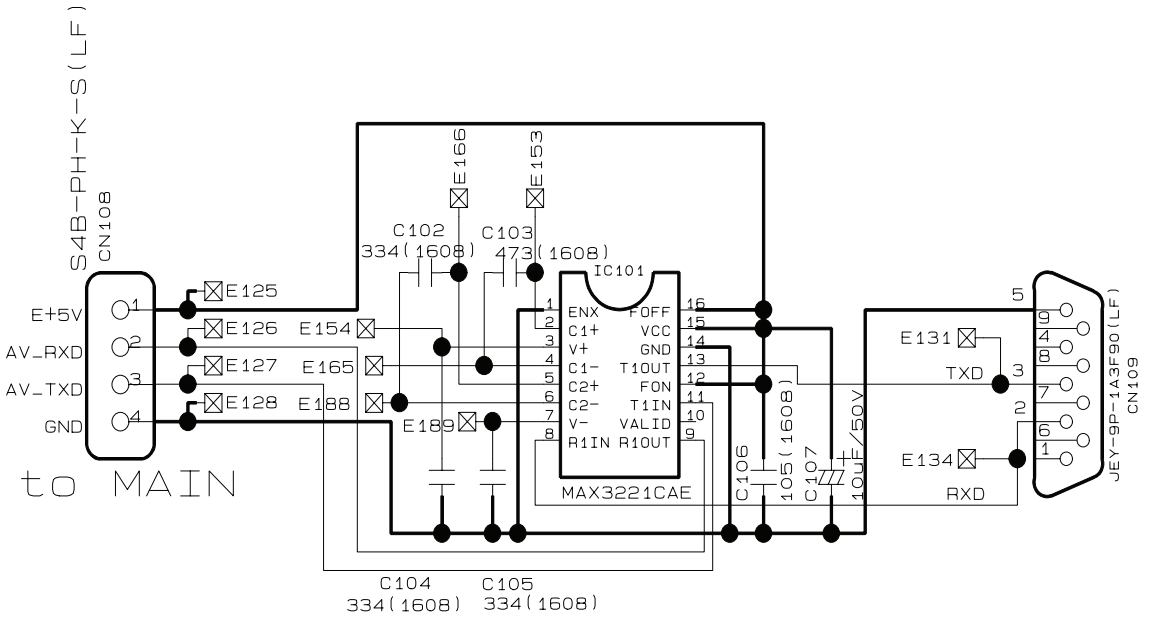



**Fig. 3-4-6**

# 4-4. Main Circuit Diagram

## 4-4-1. AV Output Circuit Diagram

**Note : The main circuit diagrams describe only part of information.**

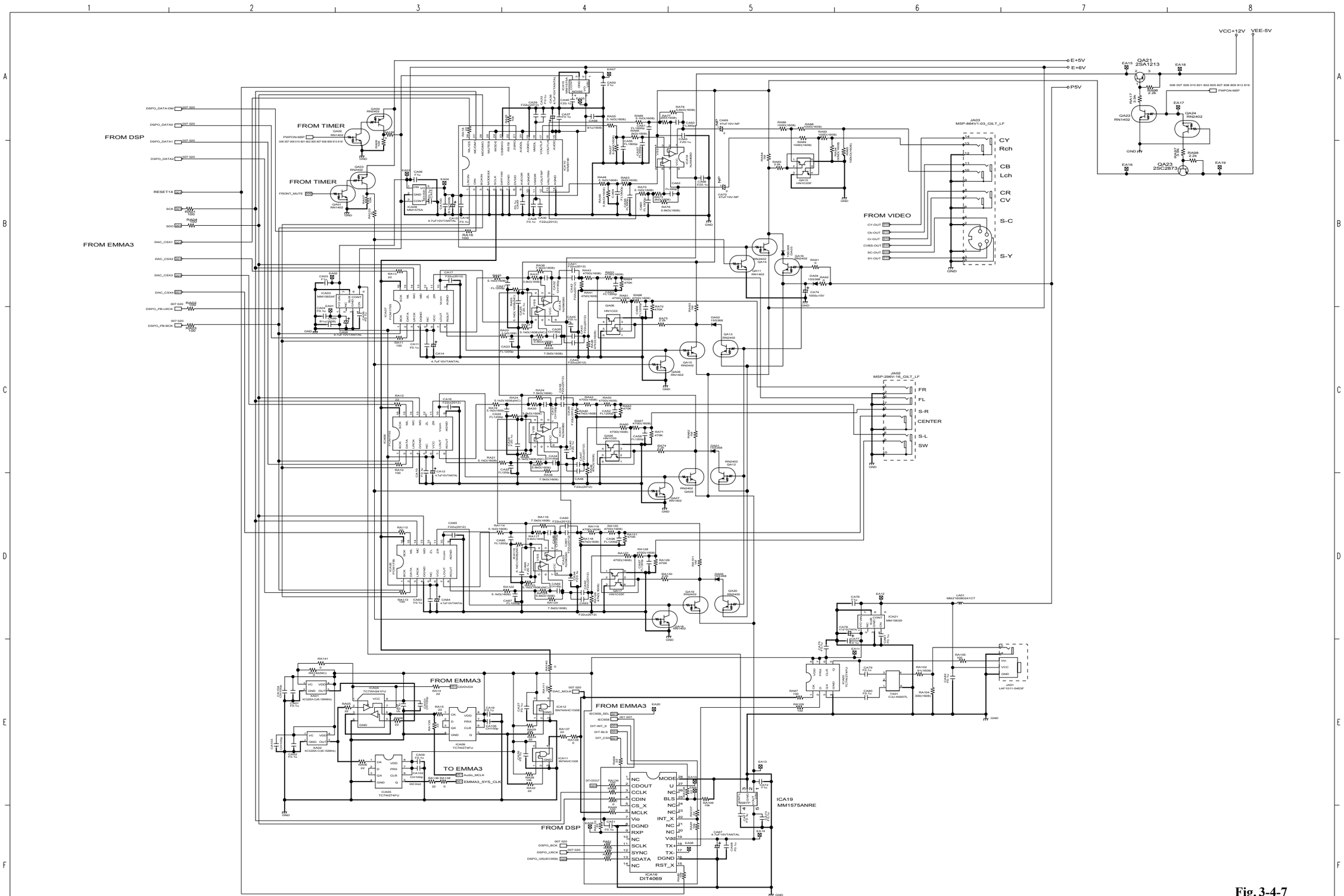



Fig. 3-4-7

## 4-4-2. Timer Circuit Diagram

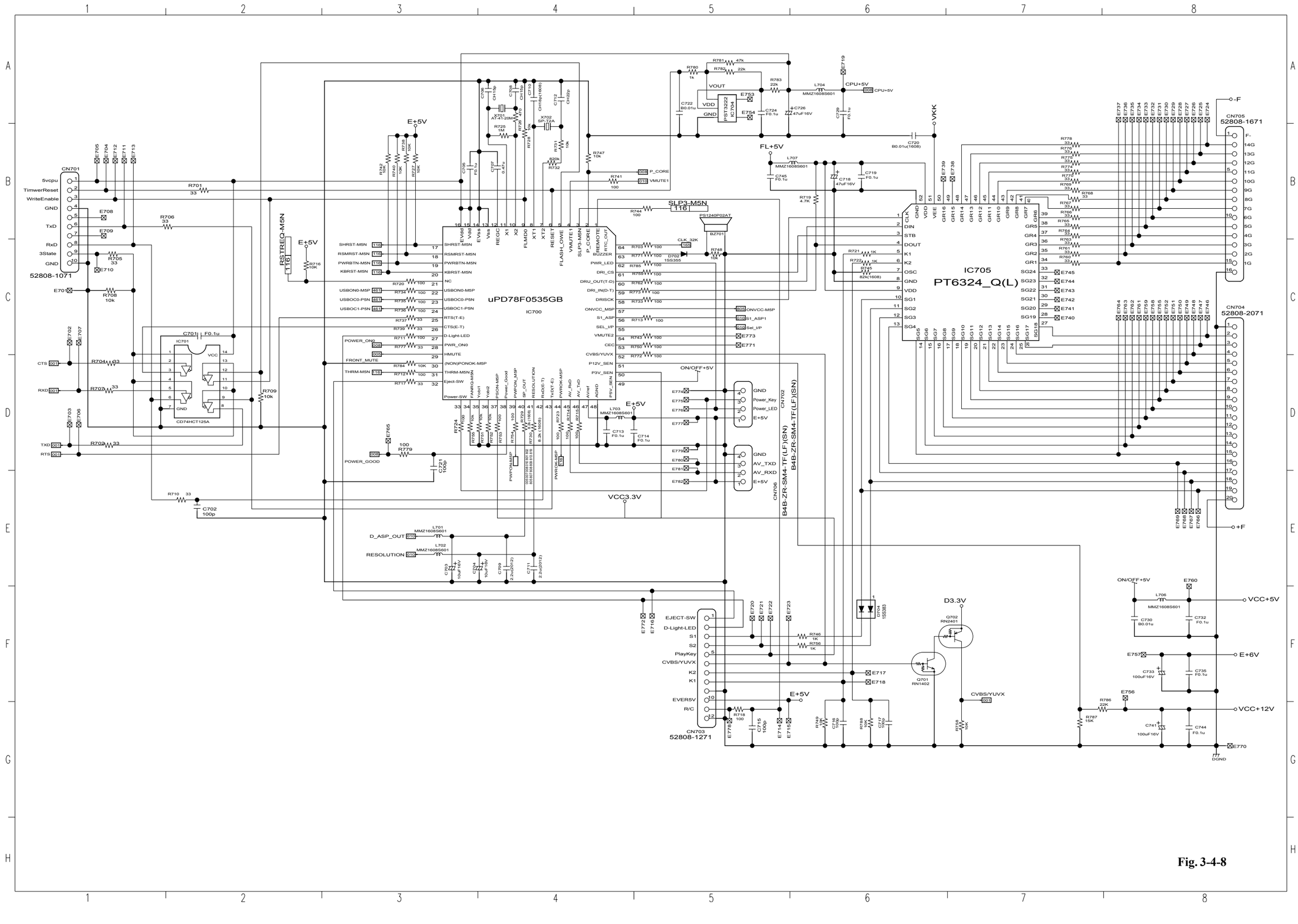



**Fig. 3-4-8**

## 4-4-3. Video Scaller Circuit Diagram

# ICP02
# REONVX-50

Fig. 3-4-9

## 4-4-4. Video Output Circuit Diagram

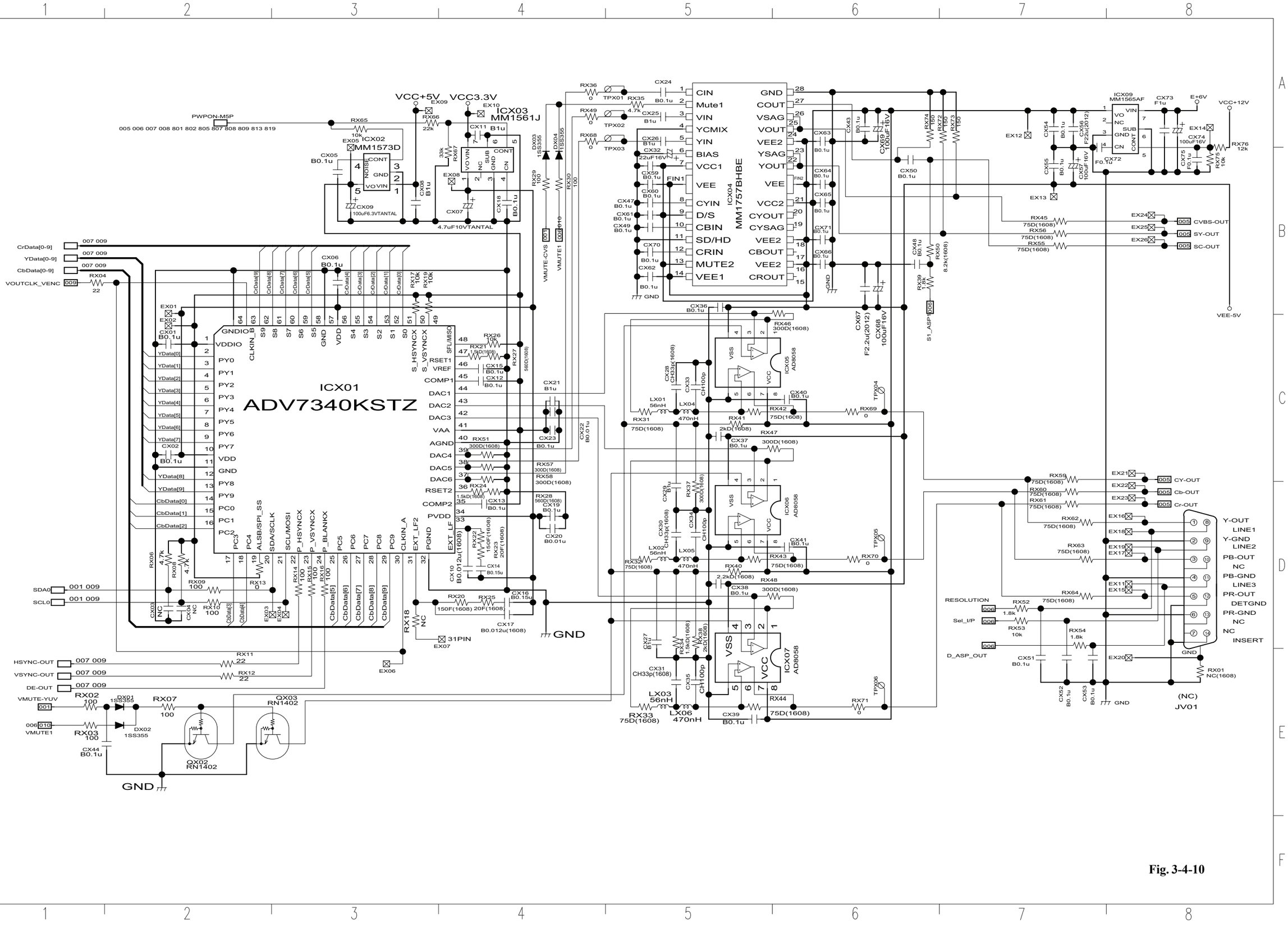



Fig. 3-4-10

## 4-5. ATAPI Conversion Circuit Diagram

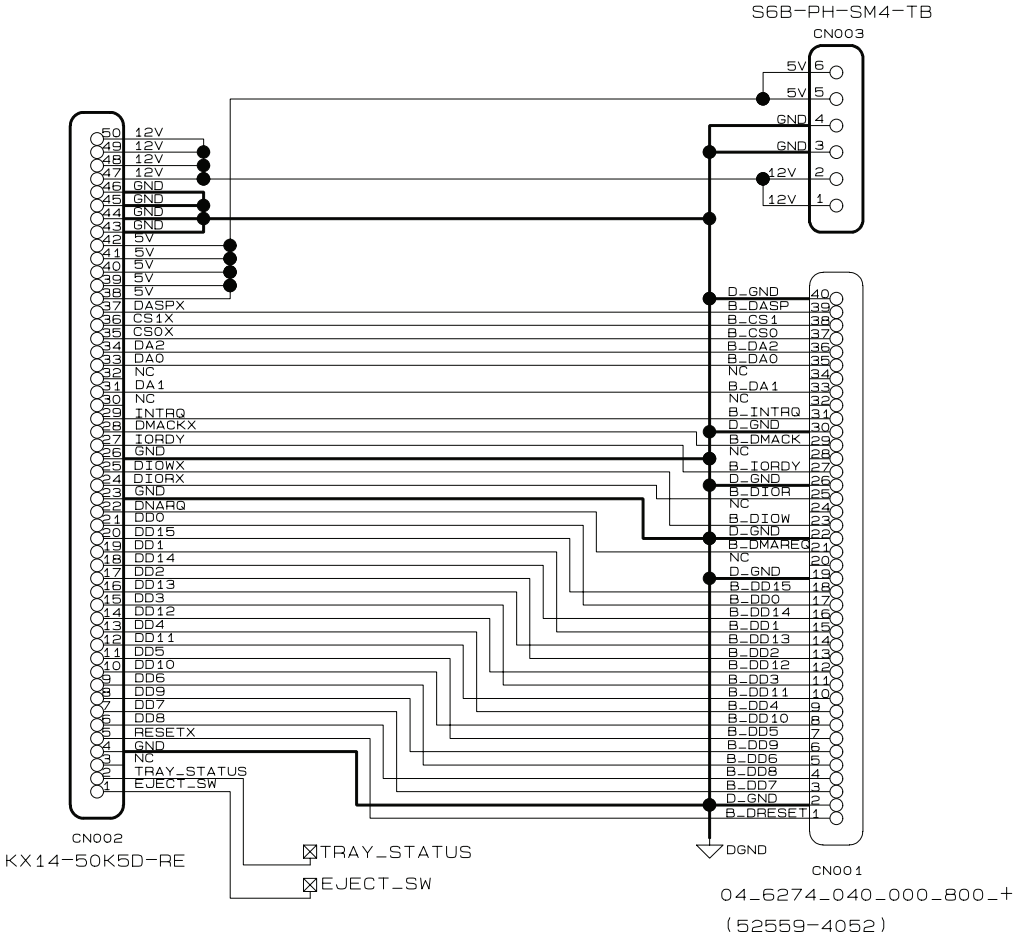



**Fig. 3-4-11**

# 5. PC BOARDS

## 5-1. Front FIP PC Board

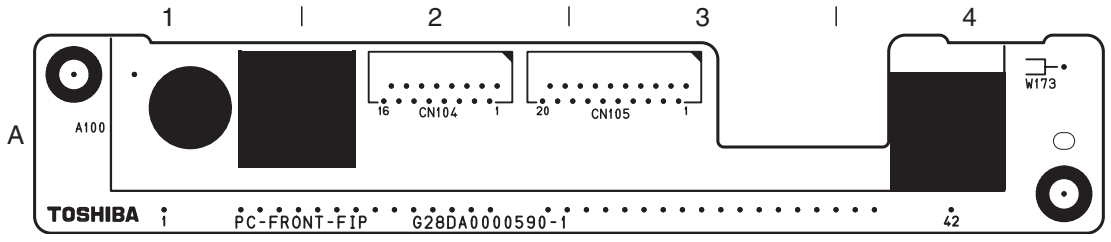



Fig. 3-5-1 Front FIP PC Board (Top side)

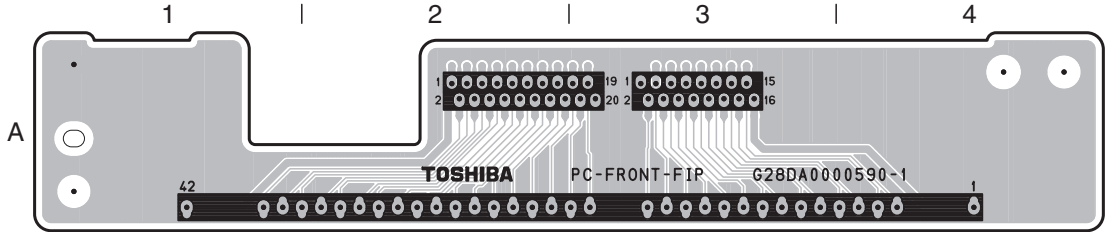



Fig. 3-5-2 Front FIP PC Board (Bottom side)

## 5-2. Power Switch PC Board

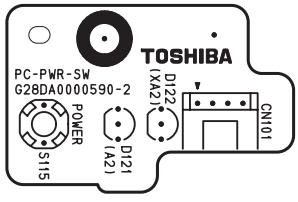



Fig. 3-5-3 Power Switch PC Board (Top side)

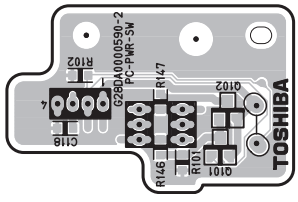



Fig. 3-5-4 Power Switch PC Board (Bottom side)

## 5-3. Front Switch/USB PC Board

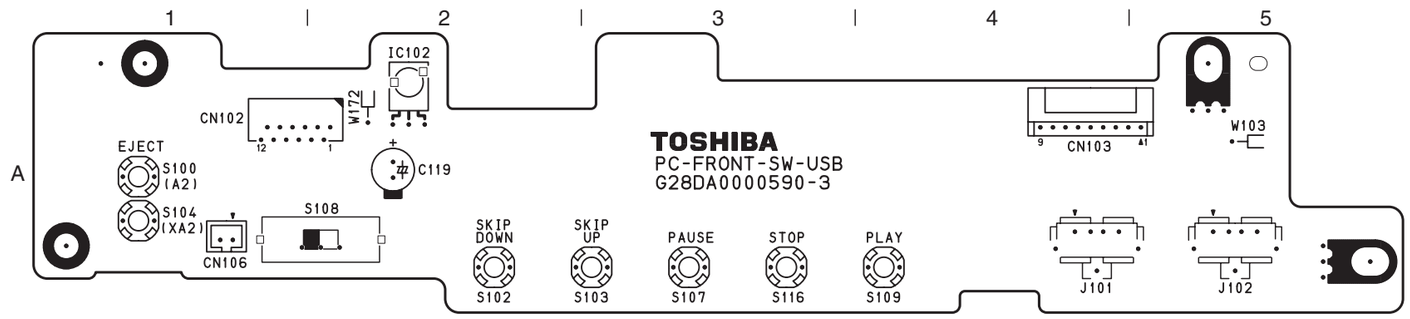



Fig. 3-5-5 Front Switch/USB PC Board (Top side)

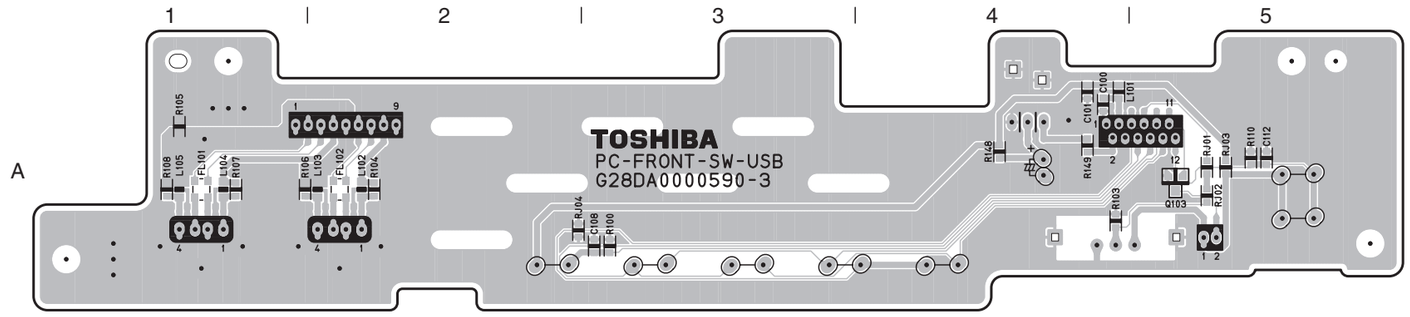



Fig. 3-5-6 Front Switch/USB PC Board (Bottom side)

## 5-4. ATAPI PC Board

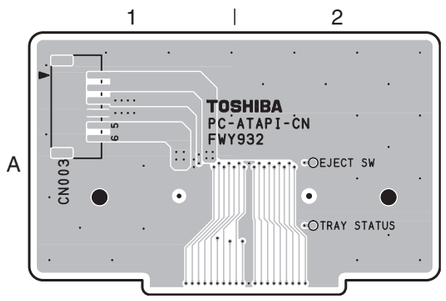



Fig. 3-5-7 ATAPI PC Board (Top side)

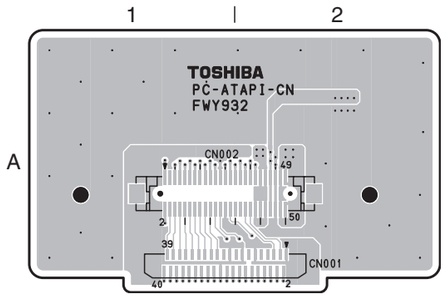



Fig. 3-5-8 ATAPI PC Board (Bottom side)

## 5-5. D-Light PC Board

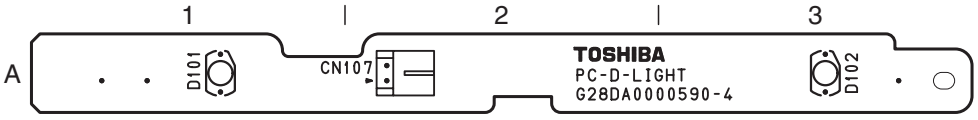



Fig. 3-5-9 D-Light PC Board (Top side)

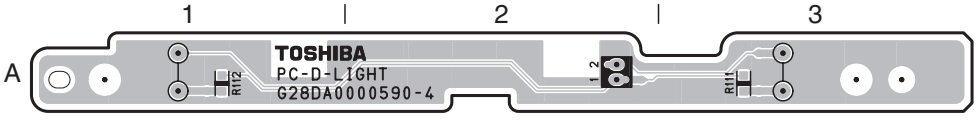



Fig. 3-5-10 D-Light PC Board (Bottom side)

## 5-6. RS232C PC Board

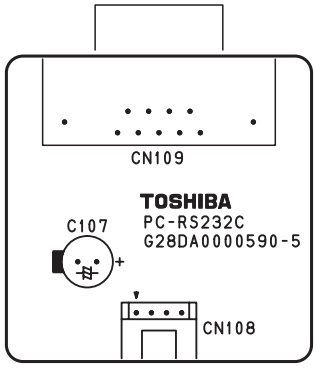



Fig. 3-5-11 RS232C PC Board (Top side)

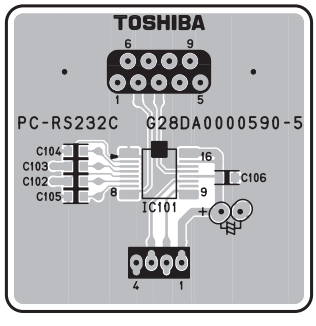



Fig. 3-5-12 RS232C PC Board (Bottom side)

# SECTION 4
# PARTS LIST

## SAFETY PRECAUTION

The parts identified by ! (⚠) mark are critical for safety. Replace only with part number specified.

The mounting position of replacement is to be identical with originals.

The substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire or other hazards.

## NOTICE

The part number must be used when ordering parts in order to assist in processing, be sure to include the model number and description.

## ABBREVIATIONS

- **Integrated Circuit (IC)**
- **Capacitor (Cap)**
  - **Capacitance Tolerance (for Nominal Capacitance more than 10pF)**

**Table 4-2-1**

| Symbol | B | C | D | F | G | J | K | M | N |
|---|---|---|---|---|---|---|---|---|---|
| Tolerance % | ±0.1 | ±0.25 | ±0.5 | ±1 | ±2 | ±5 | ±10 | ±20 | ±30 |

| Symbol | P | Q | T | U | V | W | X | Y | Z |
|---|---|---|---|---|---|---|---|---|---|
| Tolerance % | +100<br>0 | +30<br>−10 | +50<br>−10 | +75<br>−10 | +20<br>−10 | +100<br>−10 | +40<br>−20 | +150<br>−10 | +80<br>−20 |

Ex. 10µF J = 10µF ± 5%

  - **Capacitance Tolerance (for Nominal Capacitance 10pF or less)**

**Table 4-2-2**

| Symbol | B | C | D | F | G |
|---|---|---|---|---|---|
| Tolerance pF | ±0.1 | ±0.25 | ±0.5 | ±1 | ±2 |

Ex. 10pF G = 10pF ± 2pF

- **Resistor (Res)**
  - **Resistance tolerance**

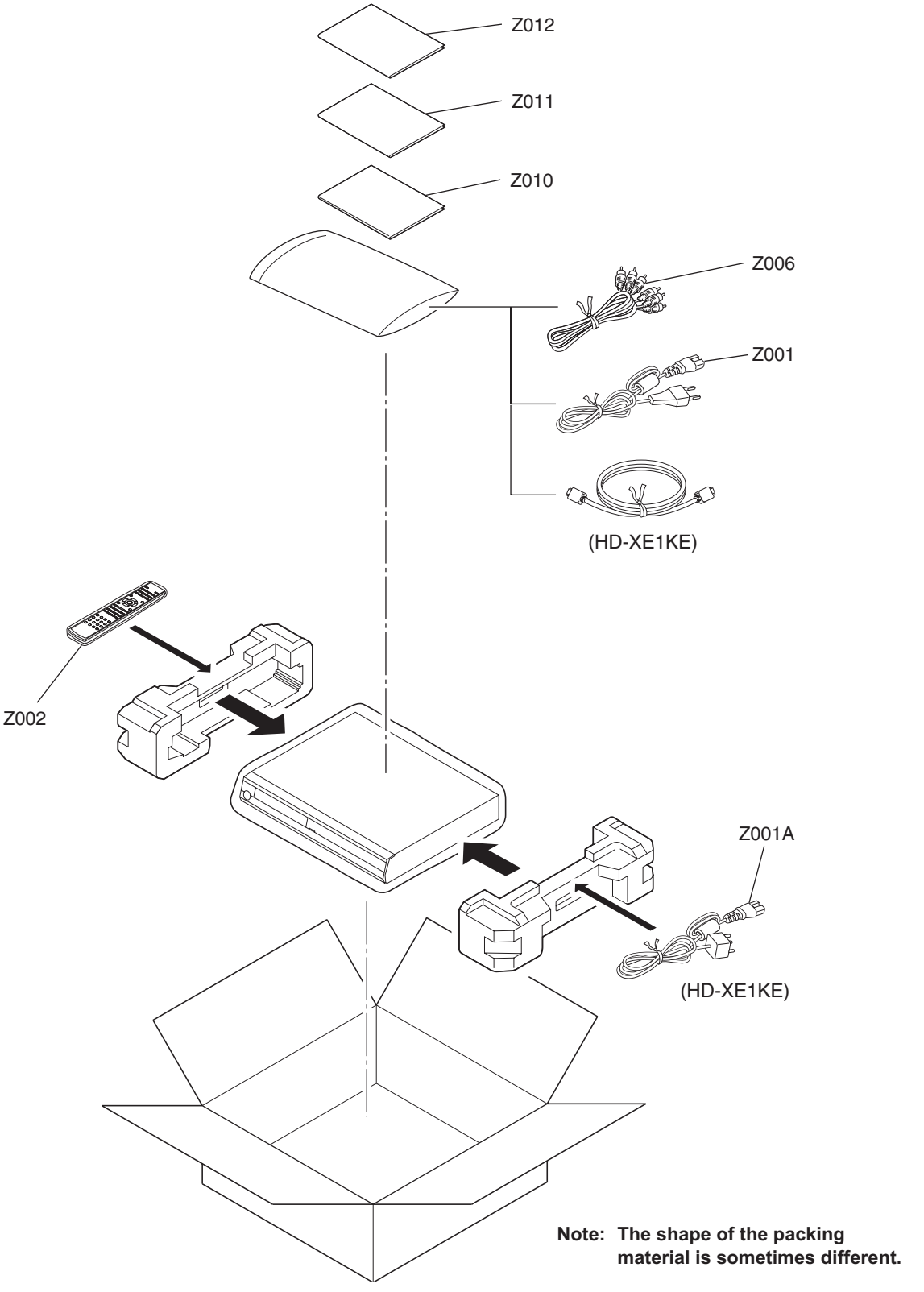
**Table 4-3-1**

| Symbol | B | C | D | F | G | J | K | M |
|---|---|---|---|---|---|---|---|---|
| Tolerance % | ±0.1 | ±0.25 | ±0.5 | ±1 | ±2 | ±5 | ±10 | ±20 |

Ex. 470ΩJ = 470Ω± 5%

# 1. EXPLODED VIEWS

## 1-1. Packing Assembly




**Note: The shape of the packing material is sometimes different.**

**Fig. 4-1-1**

## 1-2. Chassis Assembly

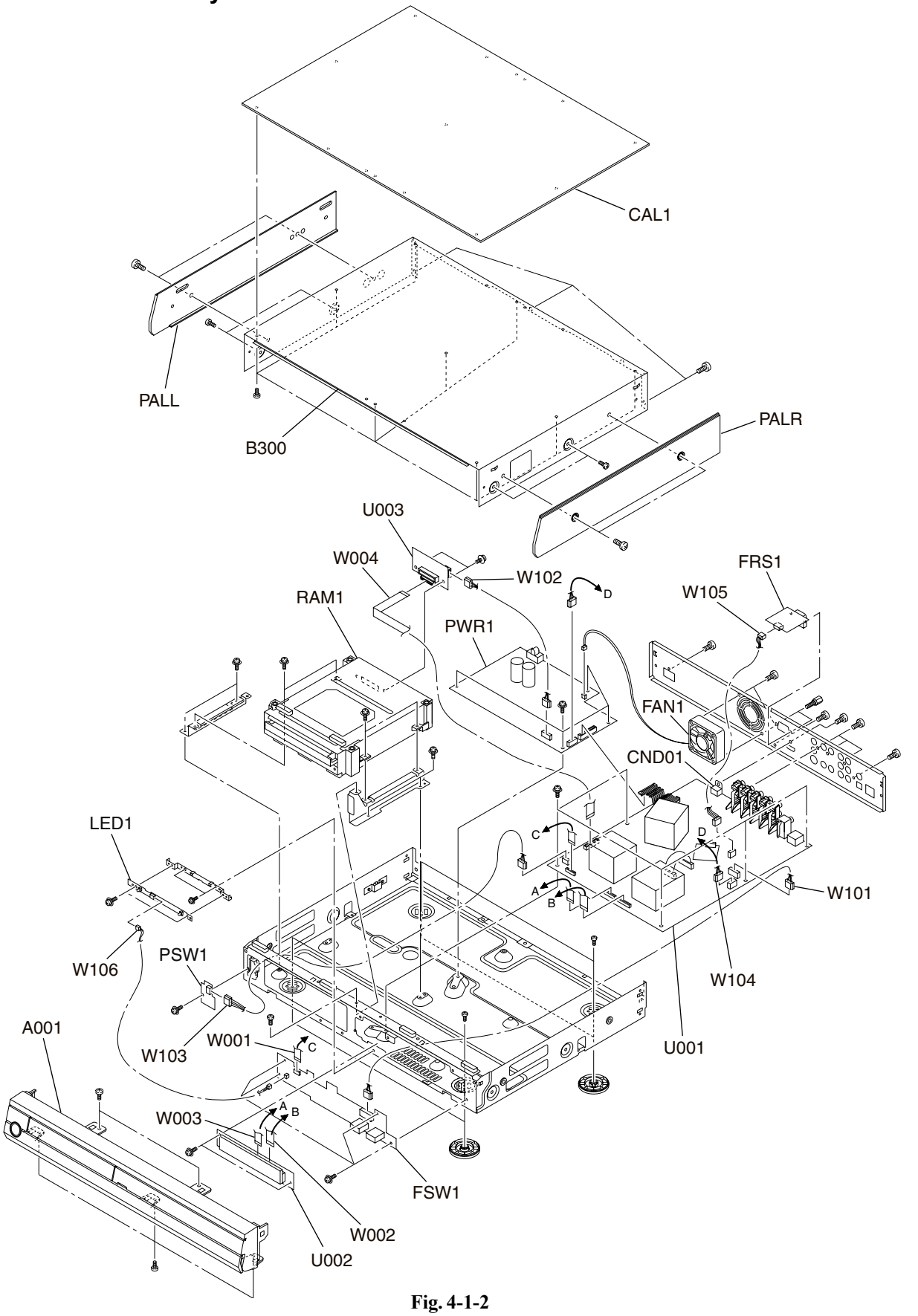



**Fig. 4-1-2**

## 2.PARTS LIST

| | Location No. | Part No. | Description | |
|---|---|---|---|---|
| | | | - ELECTRICAL PARTS - | |
| | U001 | P000479350 | PC BOARD ASSY MAIN | |
| | CND01 | P000480920 | HDMI JACK,DC1R019JBE | |
| | U002 | P000479080 | PC BOARD ASSY FRONT-FIP | |
| | U003 | P000477350 | ATAPI-FFC ADAPTER | |
| ⚠ | PWR1 | P000479360 | POWER-UNIT, MPN5115P | |
| | FSW1 | P000479100 | PC BOARD ASSY FRONT-SW | |
| | LED1 | P000479340 | PC BOARD ASSY FRONT-LED | |
| | PSW1 | P000479210 | PC BOARD ASSY POWER-SW | |
| | FRS1 | P000479330 | PC BOARD ASSY RS232C | |
| | | | - MECHANICAL PARTS - | |
| | A001 | P000479370 | PANEL ASSY, FRONT | |
| | CAL1 | P000479180 | COVER, AL-TOP | |
| | FAN1 | P000479120 | FAN, DC DSB0512LD-6V36 | |
| | PALL | P000479190 | PANEL, AL-SIDE-L | |
| | PALR | P000479200 | PANEL, AL-SIDE-R | |
| ⚠ | RAM1 | P000477500 | HD-DVD-DRIVE, SD-E802A | |
| | W001 | P000477420 | FFC-12P-L102 MAIN-FRONT | |
| | W002 | P000477430 | FFC-20P-L102 MAIN-FRONT | |
| | W003 | P000477440 | FFC-16P-L102 MAIN-FRONT | |
| | W004 | P000477450 | FFC-40P-L242 MAIN-DRIVE | |
| | W101 | P000477530 | WIRE CABLE ZHR-9P-L300 MAIN-USB | |
| | W102 | P000477540 | WIRE CABLE PHR-6P-L100 POWER-ATAPI | |
| | W103 | P000477550 | WIRE CABLE ZHR-4P-L380 MAIN-PWRSW | |
| | W104 | P000477560 | WIRE CABLE PHR-4P-L260 MAIN-POWER | |
| | W105 | P000479150 | WIRE CABLE PHR-4-AWG26-L190-ZHR-4 | |
| | W106 | P000479160 | WIRE CABLE PHR-2-AWG26-L50-PHR-2 | |
| ⚠ | Z001 | P000354930 | CORD POWER, UK-SET | HD-XE1KE |
| ⚠ | Z001A | P000477770 | CORD POWER, TE-SET | HD-XE1KE |
| ⚠ | Z001 | P000480900 | CORD POWER, TY-SET | HD-XE1KY |
| | Z002 | P000479140 | REMOTE CONTROL, SE-R0251 | |
| | Z006 | P000477520 | AV CABLE, 3P-L1500 | |
| ⚠ | Z010 | P000477870 | OWNERS MANUAL, ENGLISH | HD-XE1KE |
| ⚠ | Z011 | P000477880 | OWNERS MANUAL, FRENCH | HD-XE1KE |
| ⚠ | Z012 | P000477860 | OWNERS MANUAL, GERMAN | HD-XE1KE |
| ⚠ | Z011 | P000480910 | OWNERS MANUAL, ENGLISH | HD-XE1KY |

# SUPPLEMENT

**SUPPLEMENT1. Firmware Version Update**

We plan to respond to these developments by providing the firmware update.
The latest information will be informed Toshiba customer support on the WEB.

1) Main Firmware
2) HD DVD Drive Firmware

1. HD DVD Player FW Update
To update the firmware, the following procedures are provided.
1) HD DVD based
Internet connection Direct Download to player
2) CD-ROM
CD-ROM (mail)

2. Check Main Firmware version (in detail)
Check Main FW Version by the special Code from the remote control
<Field Service Use only — Do not disclose to users.>

1) Press “ON / STAND BY” on the unit or remote.
2) Press “DISPLAY” -> “1”->“9”->“5”-> “DISPLAY”
3) FW version is show on TV display as below.

**Machine Code: *******
**Submicom Version: **********
**Group ID: **
**Model ID: **
**Package Version: 1000
**NAND Version: ****
**NOR Version: ****
**WinCE Version: ****
**FWH Version: ****
**Drive Version: T17M**

3. Firmware Version Check procedure
Check from “SET UP Menu”

1) Press “ON / STAND BY” on the unit or remote.
2) Press “SETUP” button.
3) Select “General” -> “Maintenance”->“Update”.
4) The firmware version is shown on TV display as below.

**Update**
**1.0/T17M**
**Would you like to continue**
**The update procedure?**
**[Yes] [No]**

5) If select [Yes], downloading update will be started.

4. Firmware Update Procedure

(1) Main (or Drive) FW Update by CD-ROM disc

1) Insert Update disc into the unit.

2) Indicate the notice.

-> Select YES & press “OK” button on the remote control.

3) Version update is started. Waiting a few minutes.

4) Tray will be opened and power off automatically.

5) Power On & confirm the FW version.

(2) FW Update from WEB site

From “SETUP” menu, the latest firmware can be downloaded to the unit.

* Refer to Firmware version check procedure.

* Internet always-on broadband connection is needed.

# SUPPLEMENT2. Error Code

## 1. System Error

| External Error Code | | | | | | | | Content of Error | OSD | VFD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0 | 0 | 0 | 4 | 0 | 0 | 1 | CPU Error | | Error Code |
| 2 | 0 | 0 | 0 | C | 0 | 0 | 1 | No Disc | No Disc | Error Code |
| 2 | 0 | 0 | 1 | C | 0 | 0 | 2 | Disc Detection Error | Cannot play the disc.<br>Check the disc. | Error Code |
| 2 | 0 | 0 | 2 | C | 0 | 0 | 3 | Not Support Disc | This disc is not DVD format.<br>Cannot play the disc. | Error Code |
| 2 | 0 | 0 | 3 | C | 0 | 0 | 4 | PAL Contents Error | This disc is PAL.<br>Cannot play the disc. | Error Code |
| 2 | 0 | 0 | 4 | C | 0 | 0 | 5 | NTSC Error | This disc is NTSC<br>Cannot play the disc. | Error Code |
| 2 | 0 | 0 | 5 | C | 0 | 0 | 6 | Region Error | Region error | Error Code |
| 2 | 0 | 0 | D | C | 0 | 0 | 7 | Parental Error | Cannot play the disc due to parental lock. | Error Code |
| 2 | 0 | 0 | 1 | C | 0 | 0 | 8 | Disc Navigation Error | Cannot play the disc.<br>Check the disc. | Error Code |
| 2 | 0 | 1 | 9 | C | 0 | 0 | 9 | ICT Warning | High resolution output is prohibited for this content.<br>Resolution was changed to 480p. | Error Code |
| 2 | 0 | 2 | 4 | C | 0 | 0 | A | ICT Warning | High resolution output is prohibited for this content.<br>Resolution was changed to 480p. | Error Code |
| 2 | 0 | 2 | 5 | C | 0 | 0 | B | DOT Warning | Analog output is prohibited. Change to HDMI output. | Error Code |
| 2 | 0 | 2 | 2 | C | 0 | 0 | C | Version Up Confirmation | Version Up ?<br>[[Yes]]  No | Error Code |
| 2 | 0 | 2 | 0 | C | 0 | 0 | D | Latest firmware no version up | The software has already been updated. The update process will end. | Error Code |
| 2 | 0 | 1 | F | C | 0 | 0 | E | Start Version Up Procedure | Updating. Do not turn off. | Error Code |
| 2 | 0 | 0 | 7 | C | 0 | 0 | F | Version Up Error | Error Code : 0xXXXXXXXX | Error Code |
| 2 | 0 | 0 | 7 | C | 0 | 1 | 0 | Version Up Error | Error Code : 0xXXXXXXXX | Error Code |
| 2 | 0 | 0 | E | C | 0 | 1 | 1 | AACS Error | The prohibited transaction was executed by the content. | Error Code |
| 2 | 0 | 0 | F | C | 0 | 1 | 2 | AACS Error | This disc is not available for this player. | Error Code |
| 2 | 0 | 1 | 0 | C | 0 | 1 | 3 | AACS Error | Playback is prohibited. The playback is stopped. | Error Code |
| 2 | 0 | 1 | 1 | C | 0 | 1 | 4 | AACS Error | Failed to verify the content. The playback is stopped. | Error Code |
| 2 | 0 | 1 | 2 | C | 0 | 1 | 5 | AACS Error | Management system error occurred. Please call Toshiba Customer Support. | Error Code |
| 2 | 0 | 1 | 3 | C | 0 | 1 | 6 | AACS Error | System error occurred. | Error Code |
| 2 | 0 | * | * | C | 0 | 1 | 7 | AACS Error | Cannot play the disc.<br>Error code : 0x00000000 | Error Code |
| 2 | 0 | * | * | C | 0 | 1 | 8 | AACS Error | Cannot play the disc.<br>Error code : 0x00000000 | Error Code |
| 2 | 0 | * | * | C | 0 | 1 | 9 | Initialization Error | Cannot play the disc.<br>Error code : 0x00000000 | Error Code |
| 2 | 0 | * | * | C | 0 | 1 | A | Celeron CPU Interconnection Error | Cannot play the disc.<br>Error code : 0x00000000 | Error Code |
| 2 | 0 | * | * | C | 0 | 1 | B | File creation error | Cannot play the disc.<br>Error code : 0x00000000 | Error Code |
| 2 | 0 | * | * | C | 0 | 1 | C | internal error | Cannot play the disc.<br>Error code : 0x00000000 | Error Code |
| 2 | 0 | * | * | C | 0 | 1 | D | DISCID.DAT,Playlist Error | Cannot play the disc. | Error Code |
| 2 | 0 | * | * | C | 0 | 1 | E | internal error | Cannot play the disc.<br>Error code : 0x00000000 | Error Code |
| 2 | 0 | * | * | C | 0 | 1 | F | advanced error | Cannot play the disc.<br>Error code : 0x00000000 | Error Code |
| 4 | 0 | * | * | C | 5 | 0 | 1 | Disc unreadable error | Cannot play the disc.<br>Check the disc. | Error Code |
| 4 | 0 | * | * | C | 5 | 0 | 2 | 50Hz HD DVD warning | Cannot play the disc. | Error Code |
| 4 | 0 | * | * | C | 5 | 0 | 3 | AACS Error | | Error Code |
| 4 | 0 | * | * | C | 5 | 0 | 4 | Contents Error | Cannot play the disc.<br>Error code : 0x00000000 | Error Code |
| 4 | 0 | * | * | C | 5 | 0 | 5 | No File | Cannot play the disc.<br>Error code : 0x00000000 | Error Code |
| 4 | 0 | * | * | C | 5 | 1 | 6 | AACS Error | Failed to verify the content. The playback is stopped. | Error Code |
| 4 | 0 | * | * | C | 5 | 1 | A | AACS Error | System error occurred. | Error Code |
| 4 | 0 | * | * | C | 5 | F | E | unexpected error | Cannot play the disc.<br>Error code : 0x00000000 | Error Code |

| External Error Code | | | | | | | | Content of Error | OSD | VFD |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 0 | * | * | C | 8 | 1 | 3 | AACS Error | The prohibited transaction was executed by the content. | Error Code |
| 4 | 0 | * | * | C | 8 | 1 | 4 | AACS Error | This disc is not available for this player. | Error Code |
| 4 | 0 | * | * | C | 8 | 1 | 5 | AACS Error | Playback is prohibited. The playback is stopped. | Error Code |
| 4 | 0 | * | * | C | 8 | 1 | 6 | AACS Error | Failed to verify the content. The playback is stopped. | Error Code |
| 4 | 0 | * | * | C | 8 | 1 | 7 | AACS Error | Management system error occurred. Please call Toshiba Customer Support. | Error Code |
| 4 | 0 | * | * | C | 8 | 1 | A | AACS Error | System error occurred. | Error Code |
| 4 | 0 | * | * | C | 0 | 0 | 3 | Contents Error | Cannot play the disc.<br>Error code : 0x00000000 | Error Code |
| 4 | 0 | * | * | C | 0 | 0 | 4 | System Error | Cannot play the disc.<br>Error code : 0x00000000 | Error Code |
| 4 | 0 | * | * | C | 0 | 0 | 8 | Secure Access Controller Failure | Cannot play the disc.<br>Error code : 0x00000000 | Error Code |
| 4 | 0 | * | * | C | 0 | 0 | B | Resource Load Failure | Cannot play the disc.<br>Error code : 0x00000000 | Error Code |
| 4 | 0 | * | * | C | 0 | 0 | C | Script Failure | Cannot play the disc.<br>Error code : 0x00000000 | Error Code |
| 4 | 0 | * | * | C | 0 | 0 | D | Markup Error | Cannot play the disc.<br>Error code : 0x00000000 | Error Code |
| 4 | 0 | * | * | C | 2 | 0 | 3 | Playlist Error | Cannot play the disc.<br>Error code : 0x00000000 | Error Code |
| 4 | 0 | * | * | 4 | 6 | 0 | 0 | Graphics critical Error | Cannot play the disc.<br>Error code : 0x00000000 | Error Code |
| 4 | 0 | * | * | 4 | 6 | 0 | 1 | Pixel Buffer Error | Cannot play the disc.<br>Error code : 0x00000000 | Error Code |
| 4 | 0 | * | * | 4 | 6 | 0 | 3 | Unexpected Error | Cannot play the disc.<br>Error code : 0x00000000 | Error Code |
| 4 | 0 | 8 | B | C | 7 | 0 | 0 | Network API Error | Cannot play the disc.<br>Error code : 0x00000000 | Error Code |
| 4 | 0 | 8 | B | C | 7 | 0 | 1 | DISCID.DAT Error | Cannot play the disc.<br>Error code : 0x00000000 | Error Code |
| 4 | 0 | 8 | B | C | 7 | 1 | 0 | Illegal Input File | Cannot play the disc.<br>Error code : 0x00000000 | Error Code |
| 4 | 0 | 8 | B | C | 7 | 1 | 1 | AACS Initialize Error | Cannot play the disc.<br>Error code : 0x00000000 | Error Code |
| 4 | 0 | 8 | B | C | 7 | 1 | 3 | Illegal AACS call | Cannot play the disc.<br>Error code : 0x00000000 | Error Code |
| 4 | 0 | 8 | B | C | 7 | 1 | A | System Error | Cannot play the disc.<br>Error code : 0x00000000 | Error Code |
| 4 | 0 | 8 | B | C | 7 | F | E | Network API Critical Error | Cannot play the disc.<br>Error code : 0x00000000 | Error Code |

*OSD is a display of the TV monitor screen.
*VFD is a display of the indicator of the front panel

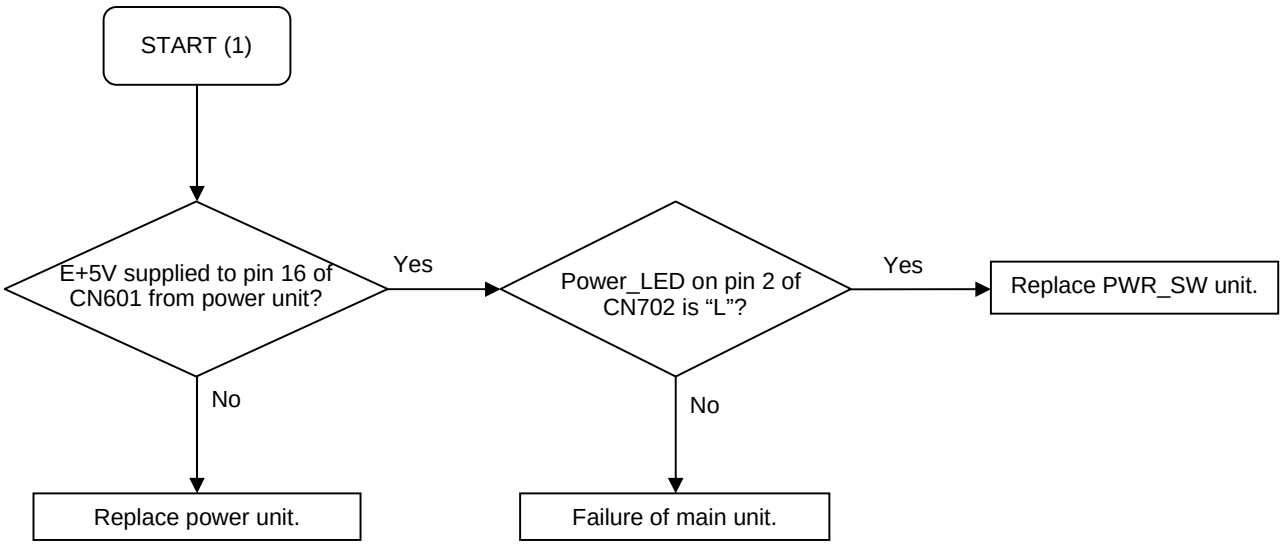
2. Update Error

| Error Code | | | | | | | | Contents of Error | Remark |
|---|---|---|---|---|---|---|---|---|---|
| 2 | 0 | * | * | C | 5 | 0 | 1 | Decryption Error | |
| 2 | 0 | * | * | C | 5 | 0 | 2 | Decryption Error | |
| 2 | 0 | * | * | C | 5 | 0 | 8 | Same Version | |
| 2 | 0 | * | * | C | 5 | 1 | 0 | file read error | |
| 2 | 0 | * | * | C | 5 | 1 | 1 | file read error | |
| 2 | 0 | * | * | C | 5 | 1 | 8 | Memory Error | |
| 2 | 0 | * | * | C | 5 | 1 | 9 | Memory Error | |
| 2 | 0 | * | * | C | 5 | 2 | 1 | File Error | |
| 2 | 0 | * | * | C | 5 | 2 | 2 | Network Error | Wrong Network Setting |
| 2 | 0 | * | * | C | 5 | 2 | 3 | Proxy Error | Wrong Network Setting |
| 2 | 0 | * | * | C | 5 | 2 | 4 | Proxy Error | Wrong Network Setting |
| 2 | 0 | * | * | C | 5 | 2 | 5 | Proxy Error | LAN connection error |
| 2 | 0 | * | * | C | 5 | 2 | 6 | connect error | |
| 2 | 0 | * | * | C | 5 | 2 | 7 | connect error | |
| 2 | 0 | * | * | C | 5 | 2 | 8 | server error | line busy |
| 2 | 0 | * | * | C | 5 | 2 | 9 | server error | line busy |
| 2 | 0 | * | * | C | 5 | 2 | A | server error | line busy |
| 2 | 0 | * | * | C | 5 | 2 | B | SSL error | |
| 2 | 0 | * | * | C | 5 | 2 | C | SSL error | |
| 2 | 0 | * | * | C | 5 | 2 | D | SSL error | |
| 2 | 0 | * | * | C | 5 | 2 | E | SSL error | |
| 2 | 0 | * | * | C | 5 | 2 | F | SSL error | |
| 2 | 0 | * | * | C | 5 | 3 | 0 | SSL error | |
| 2 | 0 | * | * | C | 5 | 3 | 1 | SSL error | |
| 2 | 0 | * | * | C | 5 | 3 | 2 | SSL error | |
| 2 | 0 | * | * | C | 5 | 3 | 3 | CRL error | |
| 2 | 0 | * | * | C | 5 | 3 | 4 | verification error | |
| 2 | 0 | * | * | C | 5 | 3 | 5 | CRL error | |
| 2 | 0 | * | * | C | 5 | 3 | 6 | CRL error | |
| 2 | 0 | * | * | C | 5 | 3 | 7 | CRL error | |
| 2 | 0 | * | * | C | 5 | 3 | 8 | CRL error | |
| 2 | 0 | * | * | C | 5 | 3 | 9 | verification error | |
| 2 | 0 | * | * | C | 5 | 3 | A | verification error | |
| 2 | 0 | * | * | C | 5 | 3 | B | verification error | |
| 2 | 0 | * | * | C | 5 | 3 | C | verification error | |
| 2 | 0 | * | * | C | 5 | 3 | D | verification error | |
| 2 | 0 | * | * | C | 5 | 3 | E | verification error | |
| 2 | 0 | * | * | C | 5 | 3 | F | verification error | |
| 2 | 0 | * | * | C | 5 | 4 | 0 | verification error | clock setting |
| 2 | 0 | * | * | C | 5 | 4 | 1 | verification error | |
| 2 | 0 | * | * | C | 5 | 4 | 2 | verification error | |
| 2 | 0 | * | * | C | 5 | 4 | 3 | verification error | |
| 2 | 0 | * | * | C | 5 | 4 | 4 | Application Error | |
| 2 | 0 | * | * | C | 5 | 4 | 5 | Memory Error | |
| 2 | 0 | * | * | C | 5 | 4 | 6 | verification error | |
| 2 | 0 | * | * | C | 5 | 4 | 7 | verification error | |
| 2 | 0 | * | * | C | 5 | 4 | 8 | verification error | |
| 2 | 0 | * | * | C | 5 | 4 | 9 | verification error | |
| 2 | 0 | * | * | C | 5 | 4 | A | authority and subject key identifier mismatch | |
| 2 | 0 | * | * | C | 5 | 4 | B | not match serial number | |
| 2 | 0 | * | * | C | 5 | 4 | C | verification error | |
| 2 | 0 | * | * | C | 5 | 4 | D | not valid time | clock setting |

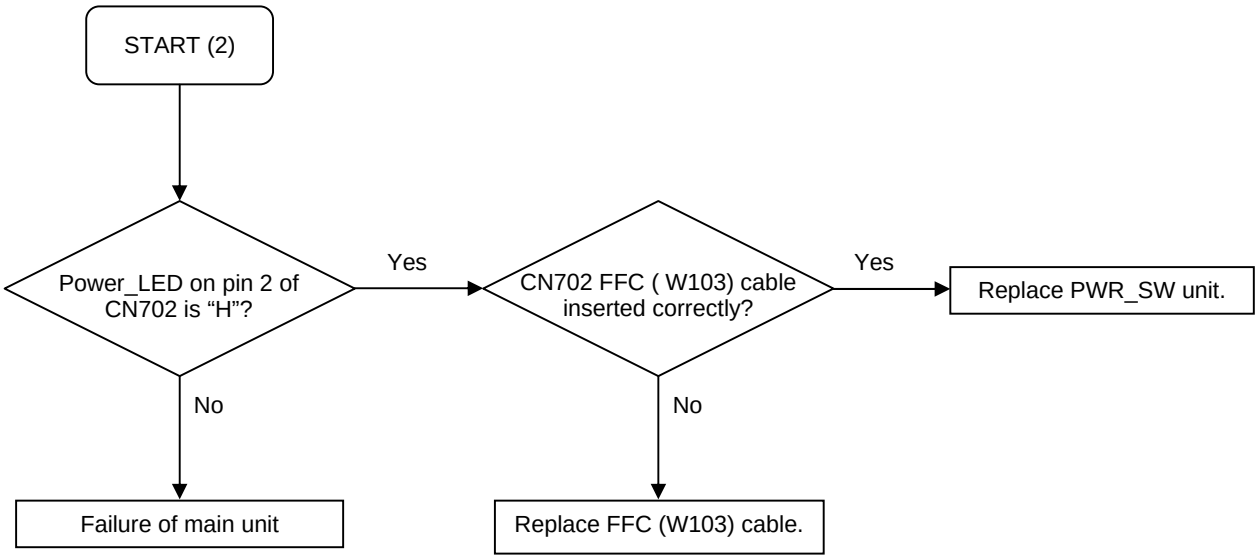
| Error Code | | | | | | | | Contents of Error | Remark |
|---|---|---|---|---|---|---|---|---|---|
| 2 | 0 | * | * | C | 5 | 4 | E | not valid time | clock setting |
| 2 | 0 | * | * | C | 5 | 4 | F | long path name | |
| 2 | 0 | * | * | C | 5 | 5 | 0 | verification error | |
| 2 | 0 | * | * | C | 5 | 5 | 1 | server error | line busy |
| 2 | 0 | * | * | C | 5 | 5 | 2 | server error | line busy |
| 2 | 0 | * | * | C | 5 | 5 | 3 | server error | line busy |
| 2 | 0 | * | * | C | 5 | 5 | 4 | SSL error | |
| 2 | 0 | * | * | C | 5 | 5 | 5 | data size error | |
| 2 | 0 | * | * | C | 5 | 5 | 6 | data size error | |
| 2 | 0 | * | * | C | 5 | 7 | 0 | Drive Error | |
| 2 | 0 | * | * | C | 5 | 7 | 1 | Drive manufacturer Error | |
| 2 | 0 | * | * | C | 5 | 7 | 2 | Drive Error | |
| 2 | 0 | * | * | C | 5 | 7 | 3 | Drive Error | |
| 2 | 0 | * | * | C | 5 | 9 | 0 | Drive Error | |
| 2 | 0 | * | * | C | 5 | 9 | 1 | flash memory error | |
| 2 | 0 | * | * | C | 5 | 9 | 2 | flash memory error | |
| 2 | 0 | * | * | C | 5 | 9 | 3 | flash memory error | |
| 2 | 0 | * | * | C | 5 | 9 | 8 | flash memory error | |
| 2 | 0 | * | * | C | 5 | 9 | 9 | flash memory error | |
| 2 | 0 | * | * | C | 5 | 9 | A | flash memory error | |
| 2 | 0 | * | * | C | 5 | A | 0 | flash memory error | VR NAND |
| 2 | 0 | * | * | C | 5 | A | 1 | flash memory error | VR NAND |
| 2 | 0 | * | * | C | 5 | A | 2 | flash memory error | VR NAND |
| 2 | 0 | * | * | C | 5 | A | 3 | Memory Error | memory shortage |
| 2 | 0 | * | * | C | 5 | A | 4 | Memory Error | memory shortage |
| 2 | 0 | * | * | C | 5 | A | 5 | Memory Error | memory shortage |
| 2 | 0 | * | * | C | 5 | A | 6 | flash memory error | VR NAND |
| 2 | 0 | * | * | C | 5 | A | 7 | flash memory error | VR NAND |
| 2 | 0 | * | * | C | 5 | A | 8 | flash memory error | VR NAND |
| 2 | 0 | * | * | C | 5 | A | 9 | flash memory error | VR NAND |
| 2 | 0 | * | * | C | 5 | A | A | flash memory error | VR NAND |
| 2 | 0 | * | * | C | 5 | A | B | flash memory error | VR NAND |
| 2 | 0 | * | * | C | 5 | A | C | flash memory error | VR NAND |
| 2 | 0 | * | * | C | 5 | A | D | flash memory error | VR NAND |
| 2 | 0 | * | * | C | 5 | A | E | flash memory error | VR NAND |
| 2 | 0 | * | * | C | 5 | C | 0 | machine code error | |
| 2 | 0 | * | * | C | 5 | C | 1 | hardware type unmatch | |
| 2 | 0 | * | * | C | 5 | C | 2 | hardware type unmatch | |
| 2 | 0 | * | * | C | 5 | C | 3 | same version | |
| 2 | 0 | * | * | C | 5 | D | 8 | not good version up image | |
| 2 | 0 | * | * | C | 5 | D | 9 | memory write error | |
| 2 | 0 | * | * | C | 5 | D | A | memory write error | |
| 2 | 0 | * | * | C | 5 | D | B | memory write error | |
| 2 | 0 | * | * | C | 5 | E | 0 | Drive firmware version up error | |
| 2 | 0 | * | * | C | 5 | E | 1 | internal command error | |
| 2 | 0 | * | * | C | 5 | E | 2 | internal command error | |
| 2 | 0 | * | * | C | 5 | E | 3 | internal command error | |
| 2 | 0 | * | * | C | 5 | E | 4 | internal command error | |
| 2 | 0 | * | * | C | 5 | F | 1 | internal command error | |
| 2 | 0 | * | * | C | 5 | F | 2 | internal command error | |

# SUPPLEMENT3. TROUBLESHOOTING

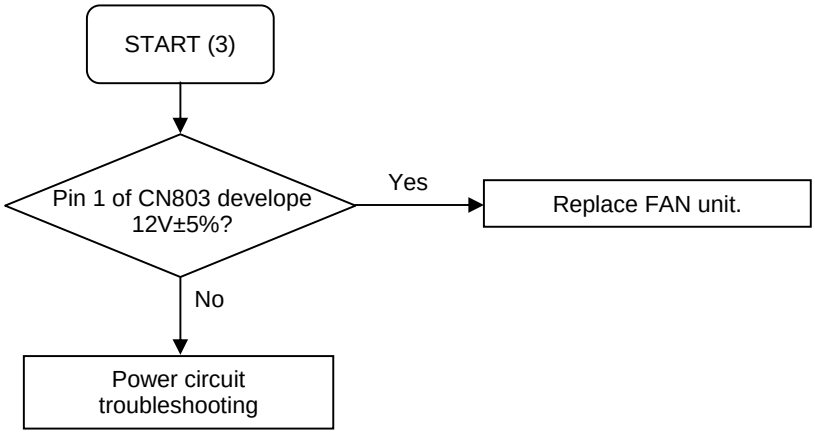
## 3-1. Standby LED (red) does not light.



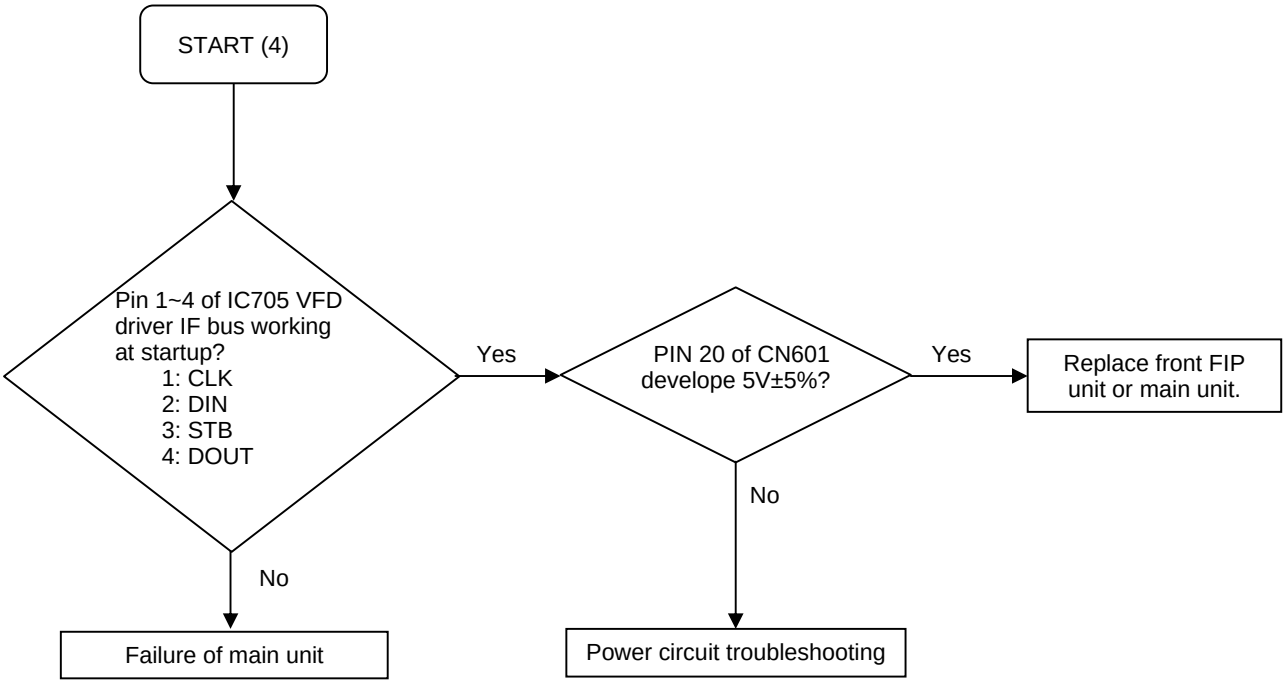

## 3-2. LED (green) does not light at power on.



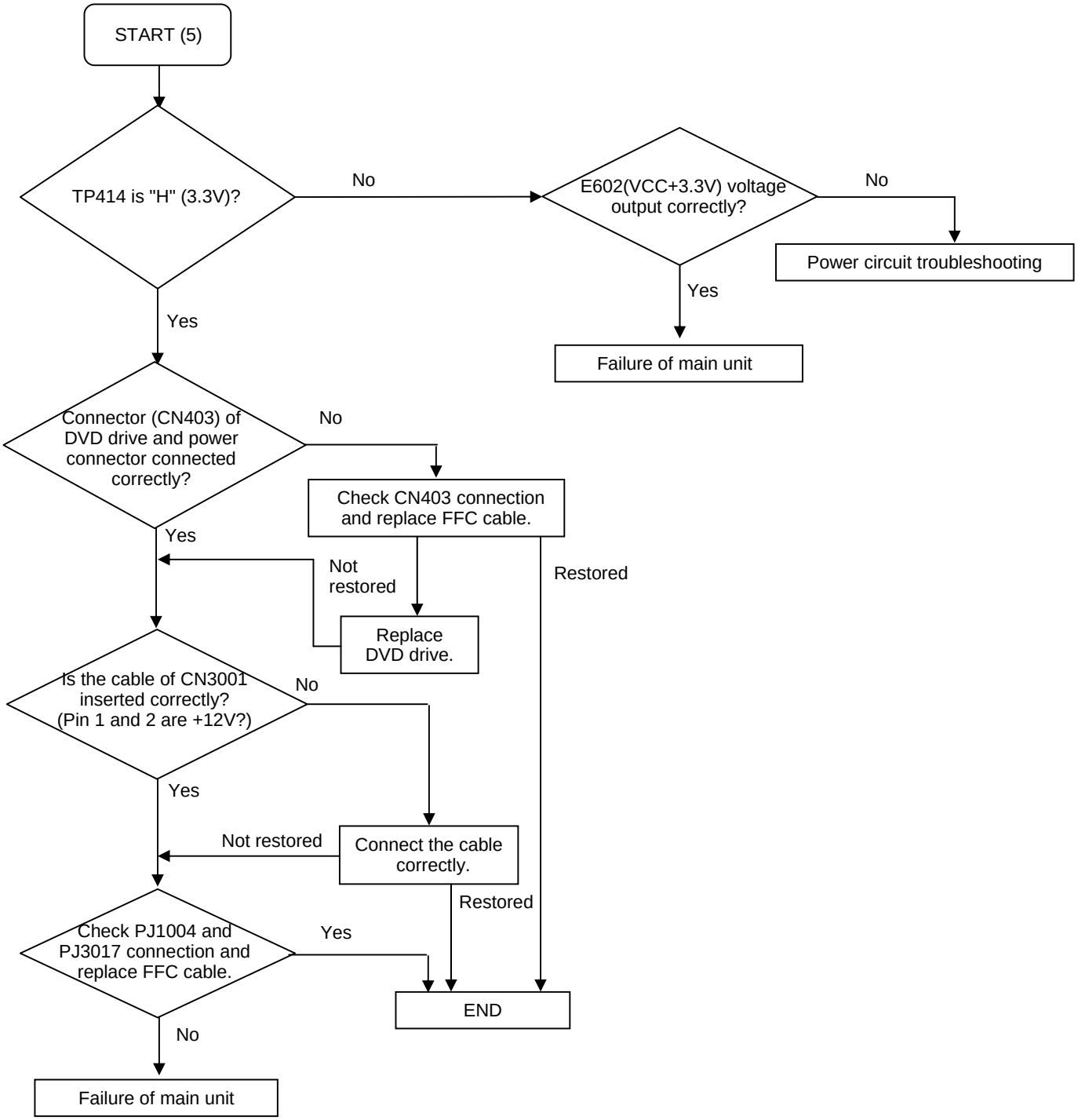
### 3-3. CPU FAN does not work.



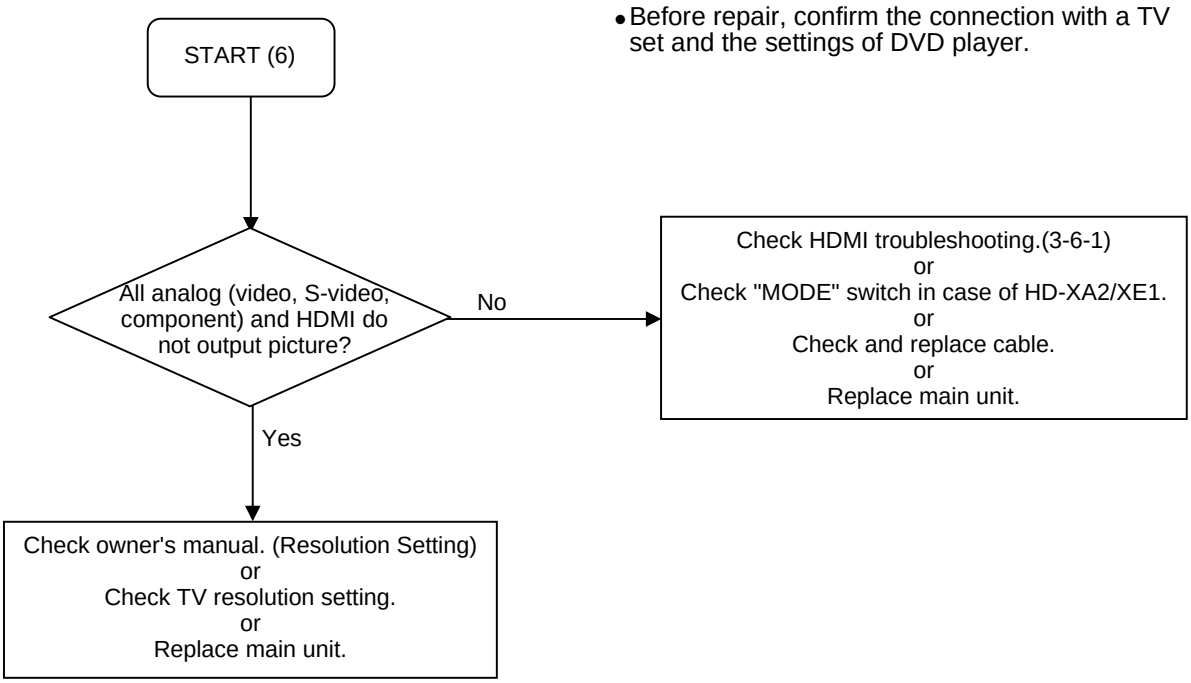

### 3-4. Indicator does not light. (“WELCOME” does not light at startup.)



## 3-5. System does not run. (“WELCOME” displayed and key operation disabled)

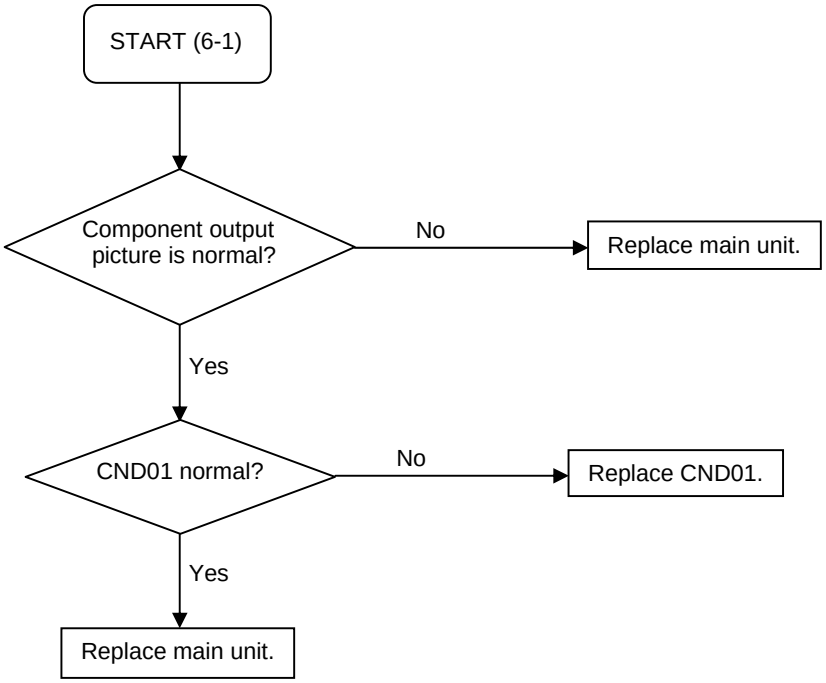


## 3-6. No picture appears.

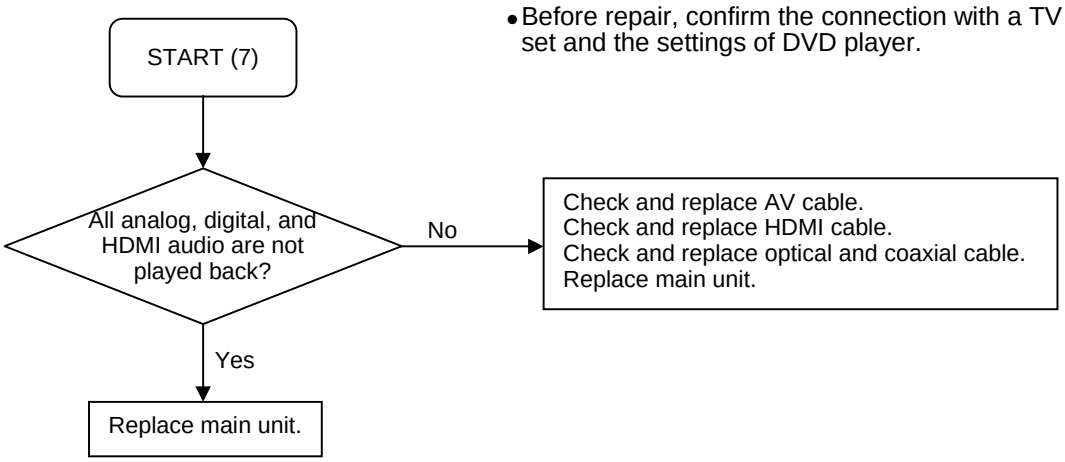



- Before repair, confirm the connection with a TV set and the settings of DVD player.

## 3-6-1. No output from HDMI.

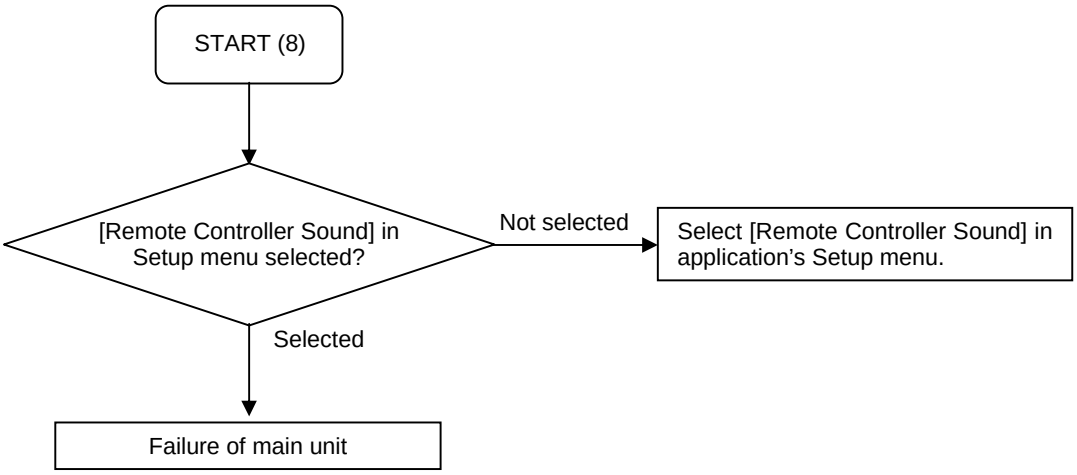


## 3-7. No audio is played back.

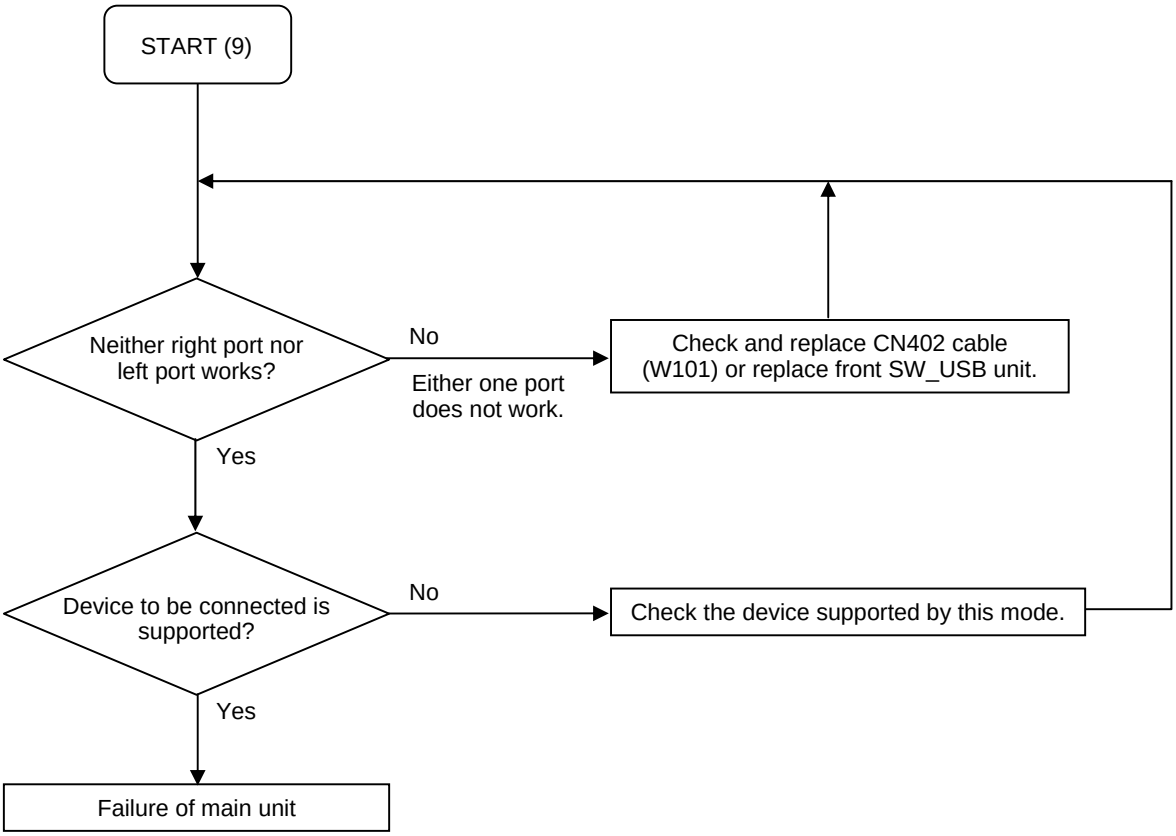

START (7)
All analog, digital, and HDMI audio are not played back?
No
Check and replace AV cable.
Check and replace HDMI cable.
Check and replace optical and coaxial cable.
Replace main unit.
Yes
Replace main unit.

- Before repair, confirm the connection with a TV set and the settings of DVD player.

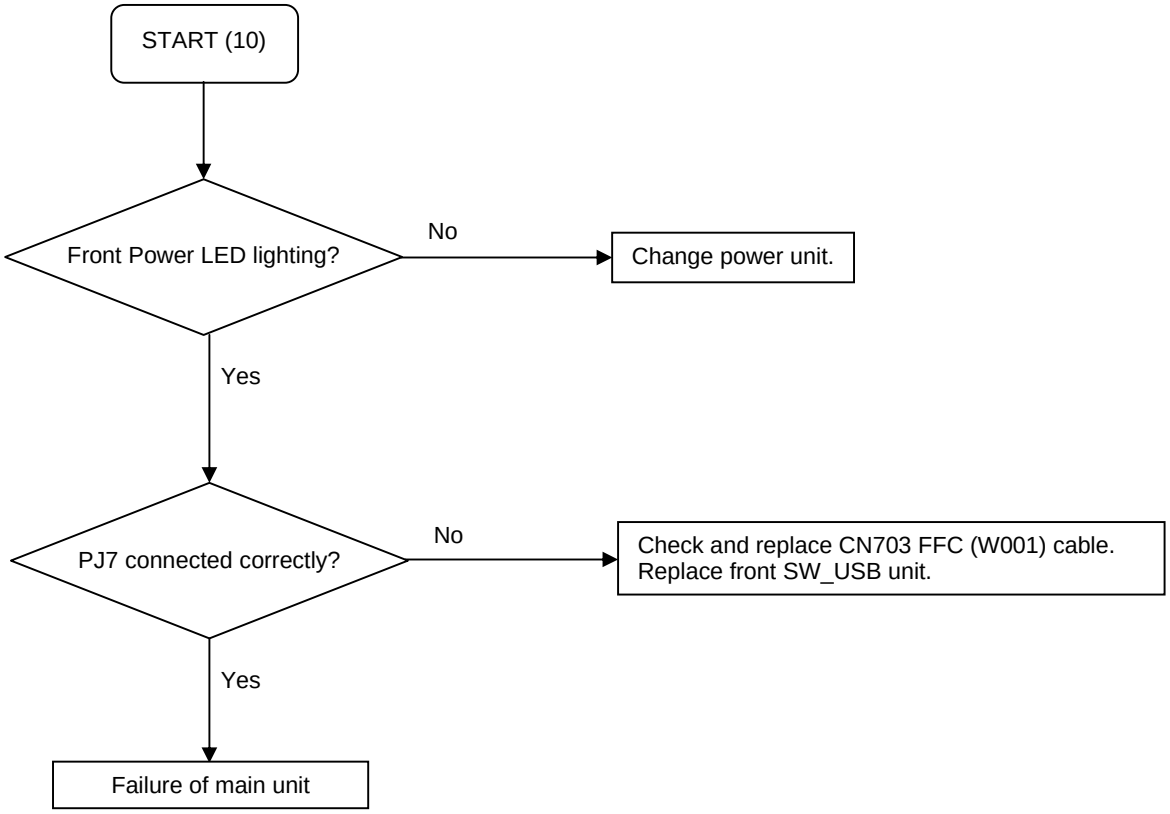
## 3-8. Buzzer does not sound.


START (8)
[Remote Controller Sound] in Setup menu selected?
Not selected
Select [Remote Controller Sound] in application's Setup menu.
Selected
Failure of main unit

## 3-9. Extension port does not work.


START (9)
Neither right port nor left port works?
No
Either one port does not work.
Check and replace CN402 cable (W101) or replace front SW_USB unit.
Yes
Device to be connected is supported?
No
Check the device supported by this mode.
Yes
Failure of main unit

## 3-10. Front panel keys/remote control are disabled.



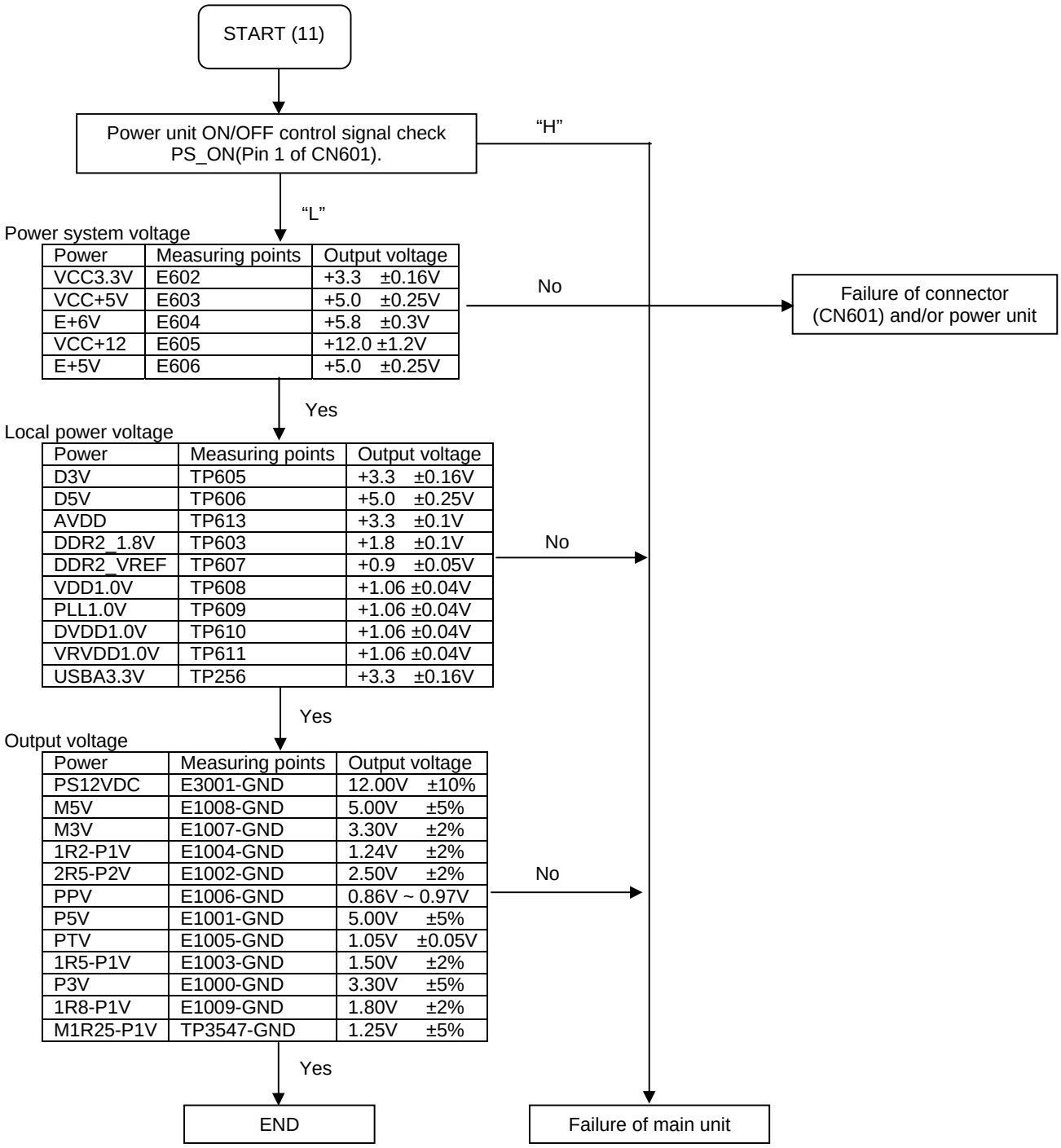

## 3-11. Other Symptoms

- Improper LAN connection
  LAN depends on the quality of the environment and lines to which LAN is connected. Check the DVD player as well as network settings, cables, and connected devices.

- Improper CONTROL pin connection
  Use a serial cross cable to connect the unit to a PC.

  Check the above. However, if the problem still remains, the main unit may be faulty.

## 3-12.Power Circuit Troubleshooting




| Power | Measuring points | Output voltage |
|---|---|---|
| VCC3.3V | E602 | +3.3 ±0.16V |
| VCC+5V | E603 | +5.0 ±0.25V |
| E+6V | E604 | +5.8 ±0.3V |
| VCC+12 | E605 | +12.0 ±1.2V |
| E+5V | E606 | +5.0 ±0.25V |

| Power | Measuring points | Output voltage |
|---|---|---|
| D3V | TP605 | +3.3 ±0.16V |
| D5V | TP606 | +5.0 ±0.25V |
| AVDD | TP613 | +3.3 ±0.1V |
| DDR2_1.8V | TP603 | +1.8 ±0.1V |
| DDR2_VREF | TP607 | +0.9 ±0.05V |
| VDD1.0V | TP608 | +1.06 ±0.04V |
| PLL1.0V | TP609 | +1.06 ±0.04V |
| DVDD1.0V | TP610 | +1.06 ±0.04V |
| VRVDD1.0V | TP611 | +1.06 ±0.04V |
| USBA3.3V | TP256 | +3.3 ±0.16V |

| Power | Measuring points | Output voltage |
|---|---|---|
| PS12VDC | E3001-GND | 12.00V ±10% |
| M5V | E1008-GND | 5.00V ±5% |
| M3V | E1007-GND | 3.30V ±2% |
| 1R2-P1V | E1004-GND | 1.24V ±2% |
| 2R5-P2V | E1002-GND | 2.50V ±2% |
| PPV | E1006-GND | 0.86V ~ 0.97V |
| P5V | E1001-GND | 5.00V ±5% |
| PTV | E1005-GND | 1.05V ±0.05V |
| 1R5-P1V | E1003-GND | 1.50V ±2% |
| P3V | E1000-GND | 3.30V ±5% |
| 1R8-P1V | E1009-GND | 1.80V ±2% |
| M1R25-P1V | TP3547-GND | 1.25V ±5% |

# SPECIFICATIONS

| | |
|---|---|
| Power requirement | 50.0W |
| Power supply | 220-240V AC 50/60Hz |
| Mass | 6.2kg |
| External dimension | Width 438 x Height 74.4 x Depth 344mm |
| Signal system | Standard PAL/NTSC colour TV system |
| Laser | Semiconductor laser, Wavelength: 405nm/650nm/780nm |
| VIDEO output | 1.0Vp-p (75Ω), Sync signal negative, Pin jack x 1 system |
| S-VIDEO output | (Y) 1.0Vp-p (75Ω), Sync signal negative,<br>(C) 0.286Vp-p (75Ω), 1 at rear<br>Mini DIN4 Pin x 1 system |
| COMPONENT output (Y, $P_B$, $P_R$) | Y output (green), 1.0Vp-p (75Ω), Sync signal negative, Pin jack x 1 system<br>$P_B$, $P_R$ output (blue, red), 0.7Vp-p (75Ω), Pin jack x 1 system each |
| ANALOG AUDIO output | 2.0V (rms), 2.2kΩ or below, pin jack (L, R) x 1 system,<br>2.0V (rms), 2.2kΩ or below, pin jack Pin jack x 6 |
| DIGITAL AUDIO OUTPUT (BITSTREAM/PCM jack) | Optical connector x 1 system, Coaxial pin jack x 1 system, 0.5Vp-p (75Ω) |
| LAN port | 100BASE-TX/10BASE-T x 1 |
| EXTENSION port | EXTENSION port x 2 systems |
| RS-232C connetctor | DSUB 9 pin |
| HDMI output | 19 pin |
| Remote control | Wireless remote control (SE-R0251) |
| Operating conditions | Temperature: 41°F ~ 95°F (5°C ~ 35°C),<br>Position: Horizontal |
| Clock accuracy | Quartz (monthly deviation: approximately ±30 seconds) |

- Designs and specifi cations are subject to change without notice.
- This model may not be compatible with features and/or specifications that may be added in the future.
- The Illustrations and screens described in this manual may be exaggerated or simplifi ed for easy recognition and may be slightly different from the actual unit.

TOSHIBA CORPORATION
1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN